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**CONSCIOUSNESS
IN NEO-REALISM**

CONSCIOUSNESS IN NEO-REALISM

BY

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PREFACE

The present study of the problem of consciousness in neo-realism was approved for the Ph.D. degree of the University of Dacca by a Board of Examiners consisting of Professors S. Alexander, G. Dawes Hicks and W. De Burgh. It was carried out under the guidance of Prof. C. H. Langley, formerly Vice-Chancellor of the University of Dacca, to whom I am indebted for my entire training as a student of Philosophy. My special thanks are due to Prof. Dawes Hicks for numerous corrections and suggestions made by him in the copy of the thesis which he read; to Mr. H. D. Bhattacharyya, Head of the Department of Philosophy of Dacca University for valuable references and criticisms and other help most ungrudgingly given in the preparation and presentation of the thesis; and finally, to my brother Rzi Bahadur Amarnath Ray who read the proofs of the whole book with the greatest care.

B. N. R.

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defined earlier and independently of American thought in England, but in its later development English realism was considerably influenced by the speculations of the American realists. This will be evident from a consideration of the later views of Bertrand Russell who openly admits his indebtedness to the neutralism of the American realists. The American realists for the first time definitely formulated their views in a co-operative study entitled *The New Realism*, which contained contributions by six prominent American thinkers (H. B. Holt, W. T. Marvin, W. P. Montague, R. B. Perry, W. B. Pitkin, and R. G. Spaulding). In this work they set forth their agreement so far as the fundamentals of realism were concerned, although they differed from each other in their working out of the special problems. *The New Realism* was mainly polemic in its tone and aimed primarily at the refutation of idealism. It was followed up by other important works by American realists, the most important among which were *Present Philosophical Tendencies* and *The Present Conflict of Ideals*, by R. B. Perry, *The Concept of Consciousness* and *The Freudian Wish*, by H. B. Holt, *The New Rationalism*, by R. G. Spaulding, and *A First Book of Metaphysics*, by W. T. Marvin.

Side by side with this development of American realism we also note the growth of English realism in the publication of such important works as *Our Knowledge of the External World*, *Atomism and Logic*, *Analysis of Matter*, *Analysis of Matter*, and *Outlines of Philosophy*, by Bertrand Russell, *Space, Time and Deity*, by S. Alexander, *Perception*, *Physics and Reality*, *The Scientific Thought*, and *The Mind and Its Place in Nature*, by C. D. Broad, and *Philosophical Studies*, by G. E. Moore. The most important, however, of the works on neo-realism is Prof. Alexander's *Space, Time and Deity*. While other works mostly aim at giving solutions of special philosophical problems in an isolated way, Alexander in his monumental work seeks to build up a complete philosophical system in which all the problems of human experience, not excluding even those of values and religion, find due and proper consideration. In its boldness of imagination and its comprehensive outlook the work of Alexander far outweighs any other contributions to neo-realism. It is the classic of neo-realism and its philosophical importance can hardly be over-emphasised.

With the publication of these works, neo-realism can no longer be labelled as a mere polemic. It has certainly

outgrown that stage and can now boast of offering to the philosophic world something which it can call its own. The positive contributions of neo-realism lie mainly in the field of epistemology; yet it has also something distinctive to offer in ontological theory. The problem of mind and consciousness finds a prominent place in the writings of the neo-realists, and it is treated both in its epistemological and ontological aspects. In many ways the problem has acquired a special importance as the controversies ranging round it, particularly in the fields of psychology and epistemology, simply demonstrate. That the neo-realists pay especial heed to the problem of consciousness is evident from the fact that R. B. Holt's *The Concept of Consciousness*, Bertrand Russell's *Analysis of Matter*, and C. D. Broad's *The Mind and Its Place in Nature* deal exclusively with this problem. Certain developments in philosophy and animal and physiological psychology have also helped to direct the attention of the neo-realists to the problem of consciousness. In the domain of philosophy William James in America protested against the conception of consciousness as a spiritual substance and held that it is only a form of connection among objects. Researches in the fields of animal and physiological psychology also tended to confirm the non-spiritual character of consciousness, the former showing that there is no serious gap between the human and the animal mind, and the latter bringing out the closer affinity of the mental and the bodily processes. Thinkers felt the need of revising their opinions on the problem of consciousness. What is the exact nature of consciousness? If it is not made up of a peculiar stuff or substance, how is it possible to distinguish it from physical entities? What is the line which marks off conscious from bodily processes? Is human consciousness of the same nature as animal consciousness? Or is there any essential difference between the two? These are important questions and a clear answer to them is demanded. The situation called for a reconsideration of the whole problem of consciousness anew from a fresh angle. The theory of consciousness should be so formulated that the status of psychology as a science independent of and intrinsically distinct from the physical sciences should not be jeopardised, and at the same time the character of consciousness should be so defined that its essential characteristics would be adequately revealed. The task was not easy, but the neo-realists undertook to perform it, and accordingly they set themselves to work out their view of

consciousness. The neo-realists are not unanimous as regards the nature of consciousness. The difference is, however, more pronounced between the English and the American realists, than either among the American realists or the English realists themselves.

The purpose of the present work is to discuss the theory of consciousness as formulated by the Anglo-American neo-realists. Special consideration has, however, been given only to the views of those thinkers who are the more prominent among them, and whose contributions to the solution of the problem of consciousness are considerable and of vital importance. Accordingly, the theories of H. B. Holt and Z. N. Perry among the American realists, and those of Bertrand Russell and S. Alexander among the English realists, have received most careful and detailed consideration. The doctrines of many of the less prominent Anglo-American realists have, however, been incidentally discussed, sometimes with the object of throwing light upon the views of the more prominent realists, and sometimes because these minor realists' contributions have been found to be of distinctive merit. The realistic movement is not, however, confined to England and America, but, as has been already pointed out, it includes within its fold many able advocates on the Continent. It is beyond the scope of the present work to consider the theories of the continental realists.

The present writer has deliberately abstained from encompassing a wide field, and has preferred to limit his study to a definite and particular problem and to the consideration of the views of some representative thinkers on the subject. This course has been adopted because an intensive study of a particular problem is considered to have greater philosophical value and has chance of being more fruitful than a study covering a wider field and a more extensive range of subjects. The present writer further considers that this study of the problem of consciousness may be of some value in view of the fact that this aspect of the neo-realistic philosophy has not received till now any special and detailed consideration. Much thought and labour have, indeed, been bestowed upon the consideration of other aspects of neo-realism, such as the problems of sense-data, truth and error, values, etc., but the problem of consciousness has not, so far, received any exhaustive treatment. The importance of the problem cannot be over-estimated, and the views of the Anglo-American realists,

on it deserve careful consideration because of their original and, in a way, radical character.

The study undertaken here is beset with certain difficulties. There is a lack of unanimity among the realists in their formulations of the theory of consciousness. The line of cleavage between the American and the English realists in this respect is pronounced. As a consequence, it has been necessary to deal with their theories separately, although, wherever possible, comparisons between their views have been instituted and their influences upon each other have been brought to light. Not only is there divergence among the Anglo-American realists, but the English and the American realists also differ among themselves in details. It is a hard task to bring out the points of similarity and contrast in the views of the Anglo-American neo-realists.

The problem of consciousness has been studied here both in its ontological and epistemological aspects. The neo-realists themselves have considered the question from these two points of view, and the answer which they have given concerning the nature of consciousness from the ontological point of view has considerable bearing upon their treatment of the problem from the epistemological standpoint. It has, therefore, been found necessary to deal with the ontology of neo-realism, in the first place, and to consider the status assigned to consciousness in the scheme of reality; and in the second place, to consider the nature of consciousness as viewed from the epistemological standpoint. In the concluding chapter the elements of value in the neo-realistic theory have been emphasised and certain suggestions have been made towards the formulation of a theory of consciousness.

CHAPTER I

The Ontology of Neo-Realism and its Bearing on the Problem of Consciousness

Before actually embarking upon a discussion of the realistic theory of consciousness it seems necessary to consider the ontology of neo-realism. The neo-realistic ontology is founded on symbolic logic which the American realists and Bertrand Russell are inclined to regard as the only instrument for philosophical research. The new logic, alone, it is believed, is capable of furnishing philosophy with a method by the right application of which it may steer clear of all the difficulties and reach the desired goal. The neo-realist claims that with the discovery of this new method a great advance has already been achieved in philosophy; many hidden complexities which so long remained unnoticed have been explored; equivocations and verbal ambiguities have been scrupulously avoided. All these, he thinks, have been primarily due to the realist's inherent regard for logical form, and rigorous application of analysis to all philosophical conceptions. (W. T. Marvin, *The New Realism*, pp. 21 ff.)

The conception of the new logic as the science of being differs fundamentally from the old conception of logic as the science of correct thinking. Logic cannot be described as the science of the laws of thought. Its formulae are no more laws of thought than the undulatory theory of light or the Mendelian law of heredity. The postulates of logic are non-mental exactly in the same sense in which the postulates of mathematics are non-mental. The validity of mathematical truths does not depend upon the question of human existence or human thought. The entities with which the mathematician deals are not the creations of his own thought, but are something which the mathematician simply discovers as realities, and which are there objective and independent of his thought and as such claiming his recognition. In the same sense, logic deals with entities which exist independent of this or that man's thought. The following quotation gives us idea as to the nature of the entities with which logic is concerned :

'The logician offers us, as does any other scientist, information regarding certain terms and their relations. Some of these

terms are classes, and some of these relations are the relations obtaining between classes and their members or between one class and other classes. Further, some terms studied in logic are propositions, and propositions are found to be related in a way called implication. Therefore the logician tries to learn the ways in which one proposition can be related by implication to another. Finally, logic deals with a number of fundamentally different sorts of relations. As the logician puts it, some are transitive, some intransitive, some symmetrical, and some asymmetrical, and so on' (W. T. Marvin, *The New Realism*, p. 61).

It appears that the terms and relations with which the logician is concerned cannot be regarded as in any sense subjective; they are non-mental in the same sense in which the entities of mathematics are non-mental. In studying classes and their relations, or propositions and their relations, we are studying certain aspects of the objective world, just as the physicist studies light or gravitation. Logic, therefore, like mathematics deals with entities that merely are, and, rightly defined, it is not the science of correct thinking but the science of being. (Cf. W. T. Marvin, *The New Realism*, pp. 51 ff., and A. First Book of Metaphysics, pp. 221-223, E. B. Holt, *The Concept of Consciousness*, pp. 2-4, E. G. Spaulding, *The New Rationalism*, pp. 14 ff.)

The new realist maintains that 'the confusion of logic with the study of man's reasoning processes has probably arisen from the fact that we always use logical information in our reasoning' (W. T. Marvin, *A First Book of Metaphysics*, p. 222). The propositions of logic are employed in the same way in which the laws and propositions of physics and mathematics are used. In physics and mathematics laws and propositions are used as 'premises or as formulae for whose variables we substitute constants' (*The New Realism*, p. 54). Take any mathematical formula $(a+b)^2 = a^2 + 2ab + b^2$. Taking this formula as the premise of my logical reasoning I want information regarding the square of 27. Let us substitute 20 for a , and 7 for b , that is, we substitute constants for variables. Thus $(20+7)^2 = 400 + 280 + 49 = 729$. So the reasoning in mathematics means substituting constants for variables. The truths of logic are assertions regarding classes and propositions. These propositions of logic, similar to those of mathematics, are formulae whose terms are variables. An example from the logic of classes will help to make the point clear. If any class 'a' is contained in another class 'b', and if this class 'b' in turn is contained in a third class 'c', then the first class 'a' is contained in

'the third class 'c'. To use this logical formula in our reasoning would mean simply that assuming it as true we substitute constants for variables. If this formula is true, and if the class "man" is included in the class "mortal", and if Socrates is a member of the class "man", then Socrates is a member of the class "mortal". Logic is not concerned with such particulars as man, mortal, or Socrates, but with something more general. (Bertrand Russell, *Mysticism and Logic*, p. 112) Logic is concerned with variables and it gives us formulae. 'To use logic means to substitute in a formula constants for the variables of the formula.' Logical reasoning, therefore, is the same as mathematical reasoning, and the entities of logic also being the same as those with which mathematics is concerned, the new realist arrives at the momentous conclusion that logic and mathematics are one. (Cf. *The New Realism*, pp. 54-56)

New realism thus accepts the identification of logic with mathematics and therefore decides that logic is in any sense the science of thinking. Logic, in using the mathematical method, deals with something more persistent than mere thought; the logic of the new realist is the logic of being. This is expressed by W. T. Marvin and E. B. Holt in the following words:

'Mathematics, as a system of true propositions has been in part discovered by man; but the discovery or that failure to discover did not add or subtract anything to or from mathematics, did not make any of its propositions either true or false, did not alter it in any way.' (*The New Realism*, p. 87)

'Algebra, geometry, and other mathematical systems have never seemed describable, quite as systems of correct thinking; their validity has been too objective for this, and too independent of whether this man or that or whether whole generations of men, thought in such a way or not.' (*The Concept of Consciousness*, p. 3)

The new realist believes that a theory of reality can be formulated from certain fundamental logico-mathematical concepts. Accordingly, he starts with a 'certain Given consisting of terms and propositions which generate of their own motion all further terms and propositions'. (*The Concept of Consciousness*, p. 16) The given terms and propositions from which the realist starts are certain fundamental, simple, and indefinable entities. The fundamental terms cannot be defined, but can only be exhibited to the human mind. Other terms can be defined in terms of the fundamental entities, and in that case the former are essentially more complex entities. The relation of simple

to complex is asymmetrical, and it would not be possible truly to define simple terms in terms of entities more complex. (*ibid.*, p. 18)

The new realist employs the method of analysis to reach the ultimate indefinable entities. It is the method which seeks to discover whether the things deemed complex are capable of being reduced to simpler terms. 'A neo-realist recognizes no ultimate immediacies, nor non-relational, nor indefinable entities except the simples in which analysis terminates.' (*The New Realism*, p. 32) Russell considers 'the essence of philosophy to be analysis and not synthesis'. (*Mysticism and Logic*, p. 118) He describes analysis as the 'substitution of the piecemeal, detailed, and verifiable results for large untested generalities recommended only by a certain appeal to imagination'. (*Our Knowledge of the External World*, p. 4) 'The direction of analysis is from complex and relatively concrete to the simple and abstract, ultimately 'to eliminate the particularity of the original subject-matter, and to confine our attention entirely to the logical *form* of the facts concerned'. (*ibid.*, p. 105) Russell asserts further that analysis treats of things distributively and is 'concerned with such properties of all things as do not depend upon the accidental nature of the things that there happen to be, but are true of any possible world, independently of such facts as can be discovered only by our senses'. (*Mysticism and Logic*, p. 111) R. G. Sprinkling defines analysis as the 'discovery or, possibly, the invention of parts—the parts of the whole analyzed'. (*The New Realism*, p. 155) Everyone would agree that 'that which is analyzed is in some sense a whole,' and that 'that to which analysis leads is in some sense a part'. He, however, distinguishes between two kinds of analysis, namely, (1) *formal*, and (2) *experimental*. Analysis is essentially the method to discover the constituent parts composing a whole. 'Those constituent parts, of which analysis discloses certain wholes to be made up, are to be accepted as entities that are not thereby created, but that are discovered.' (R. G. Sprinkling, *The New Rationalism*, p. 27) If it is found that the 'entities can be both related and independent, then such constituent entities do not of necessity causally affect, modify, alter, or create one another'. Hence 'the entities can be removed experimentally without being changed' (in such cases the analysis will be experimental, e.g. the analysis of a chemical compound), or 'if an experimental removal is impossible, they, or at least certain

classes of them, can be selected and isolated in the attention field, while others are ignored'; and in such cases the analysis will be formal or what has been technically described as *analysis in situ*. It is claimed that the *analysis in situ* is most fruitful in 'the discovery of the details of those complex entities that cannot be experimentally rent asunder'. The chief service which *analysis in situ* renders is in connection with the knowing situation. It demonstrates the futility of the idealistic theory that in knowledge the subject and the object are organically related to each other where one term of the relationship cannot be sundered from the other without detriment thereto. The new realist asserts that 'the knowing process and the "state of affairs" known and asserted in the position taken, are both independent and related'. (*Ibid.*, p. 26)

The analytical method pursued by the realist leads him to the significant and far-reaching conclusion that 'relatedness and independence are quite consistent and co-existent'. (*Ibid.*, p. 22) 'The compatibility of independence and relatedness' applies universally to all situations, be they mathematical, physical, or mental. This brings us to the problem of the externality of relations upon which the realistic doctrine of independence is based. The new realism advocates the theory of externality of relations according to which relations are external to the terms, and the terms can pass in and out of relations without being modified in any way by such relationship. It is held that relatedness and independence are quite compatible and it is not possible, Bertrand Russell believes, to attach any constitutive value to a relation.

The theory of external relations 'shows that the nature of things is prior to the relations into which they enter, and that the nature of these relations, whether of dependence or not, is an extrinsic fact'. (R. B. Perry, *Present Philosophical Tendencies*, p. 320) A term is just itself, whether unrelated or in relation; the acquirement of a new relation or the loss of an old one does not affect its nature at all. 'The terms in a relation are not constituted by that relation; but each term is what it is independently both of its relations and of the terms to which it is related.' (W. T. Marvin, *A First Book of Metaphysics*, p. 86)

It is important to note that the doctrine of the externality of relations is of great significance for the new realist, because it furnishes the basis of his ontological pluralism. If the terms are independent of their relation, and if the relations have, in their turn, no constitutive

value, then a pluralistic conclusion seems inevitable. The world can be conceived only as an aggregate of terms in different groups of relations, where the terms and the relations can be disengaged from each other by means of analysis, and their mutual independence can be easily exhibited. Russell and the American realists, on the basis of the theory of external relations, support a pluralistic view of the universe. (Bertrand Russell, *Myself and Logic*, p. 111; R. B. Perry, *Present Philosophical Tendencies*, p. 320; E. B. Holt, *The Concept of Consciousness*, p. 51)

Prof. Alexander, however, does not accept the theory of external relations, at least in the extreme form in which it is presented by Russell and the American realists. He maintains that Space-Time is the matrix of all being and so both the things and their relations are complexes derived therefrom. He considers that since 'the business of relation is to relate' there cannot be any 'relation without things it relates which are then called its terms'. Relations are external in the sense that they 'have a recognisable existence as much as the terms have', and not in the sense that they 'can exist in separation from their terms or things'. Again relation is internal only in the sense that 'it cannot exist without its terms' and not in the sense of inherence, i.e. not in the sense of a quality which inheres in its substance. (*Space, Time and Deity*, I, pp. 249-250) Prof. Alexander concludes as follows:

'Thus neither of the alternatives, relations are external, relations are internal, is true without qualification or in a valuable sense. If we separate the world into terms and their relations we are making an abstraction . . . The world consists of things in their relations.' (*Ibid.*, I, p. 251)

In this connection it is important to recognize that Prof. Alexander, as opposed to Russell and the American realists, holds a theory of ontological monism. According to him Space-Time is the ultimate reality, and all other empirical existents, including things and their relations, are only its complex configurations. So he is unable to accept the theory of external relations in its extreme form which, with its doctrine of plurality of terms and relations as ultimate, is inconsistent with his monistic position.

Analysis reveals two classes of entities, namely, existents and subsistents. An existent may be defined as 'an entity that either has been, is now, or will be "at" or "in" a particular place, at a particular time, or merely at a particu-

cular time, if the entity is not spatial, as, e.g. a conscious process is not'. (R. G. Spaulding, *The New Rationalism*, p. 400) The definition of substantia as entities occupying particular portions of space and particular moments of time is not adequate, because that would lead to the inclusion among existents of the dream objects, which also possess spatial and temporal particularity. A complex existent, therefore, 'must have *that full quota of characteristics*, or be that full quota, which the science of physics, chemistry, biology, psychology, and the like find it empirically to have'. Existents are of two kinds, *physical and mental*. 'Physical existents are things, forces, energies, qualities, such as solidity and elasticity, relations, such as cause and effect, and events, such as falling of bodies and the flow of electrical currents.' 'Among such physical entities are both those that are directly perceived and those that are inferred in order to explain causally and functionally those things, forces, etc., that are directly perceived. *Mental existents* are, analogously, to be accepted essentially as they are interpreted by empirical psychology, namely as processes or events that occur at a *certain specific time*.' 'Substantia entities are, on the one hand, *experienced*, and are found not to be self-contradictory; i.e. they are "*consistent*". Yet on the other hand they are not existents, for they are found to lack those qualities, or at least that *full quota* of qualities, including temporal and spatial localisation, which psychology and physics recognize as essential to objects that *exist*.' (Ibid., pp. 401-402)

W. T. Marvin defines a substantia as that which is 'logically possible', but may not be found in the actually existent world. In this sense 'perpetual machines' subsist, but do not exist. As a genuine object of thought a substantia 'is certainly not a mere nothing', but possesses being, and the mere fact that 'it does not exist must not be urged against its having a place in science'. The realm of subsistence is, therefore, inclusive of the realm of the existent, and the existent world is only one out of many logically possible worlds. (*A First Book of Metaphysics*, p. 407) Similarly, Prof. Montague uses the term substantia to 'denominate any one of the accepted essentially as objects of thought'. (*The New Realism*, p. 253)

In his *Problems of Philosophy*, Bertrand Russell argues as against Hume that relations as well as qualities have objective validity, in the sense that both are real entities. Like qualities, 'their being is independent of the apprehending mind. The essential feature of these relations consists in the fact that they are neither in space nor

in time, neither material nor mental. In this respect they are to be distinguished from sensible facts or facts revealed by introspection both of which have spatio-temporal existence. So the relations should be more properly described as universals in order to distinguish them from spatio-temporal existents which as events are necessarily particular. And their *being* also cannot be the same as that of events which exist in space and time. To describe this peculiar type of being the term 'subsistence' is employed. The subsistent universals can become objects of our thought, but they can be given only to our intuitive or immediate knowledge or what Russell describes as knowledge by acquaintance. (*ibid.*, Chapters IX and X.)

The relation between subsistence and existence ultimately turns out to be the relation between universal and particular; and here also, as in the case of external relations, Alexander differs fundamentally from Russell and the American realists. Alexander maintains that both the universals and the particulars are complexes of Space-Time, and are, therefore, made up of the same stuff. The universals have *being* only within Space-Time and cannot be regarded as wholly independent of Space-Time, although their existence is 'free from limitation to one particular space and time'. (*Space, Time and Deity*, I, p. 222) The universal exists in so far as it is realized in particulars. So subsistence 'must not be understood to imply a neutral being which is distinct from the world of spatio-temporal existents. The universal subsists in so far as its particulars exist and is spatio-temporal, though not particular. . . . It is not timeless or eternal as being out of time, but as being free from limitation to a particular time.' Prof. Alexander with the help of his hypothesis of Space-Time finds it easier to explain the relation between universal and particular, and especially the problem as to how universals are realized in particulars. He does not hold that the universals subsist in a realm different from that in which the particulars exist, but maintains that both universals and particulars are made of the same stuff (being complexes of Space-Time), and have reality within the more inclusive realm of Space-Time. Russell and the American realists, in drawing a fundamental distinction between the universal and the particular (describing the former as non-temporal and non-spatial, and the latter as having spatio-temporal existence) and assigning to the former a mode of being entirely distinct from that of the latter, seem to have fallen into the same kind of difficulty with which Plato was confronted when he separated the world of

opinion from the world of knowledge. Once the two realms are separated the difficulty arises as to how to explain their unity as a fact of our actual experience. The inevitable result of such a dualism (where as a matter of fact the universals are regarded as belonging to a superior order of reality) is that the sensible world is dubbed as appearance.

Despite the difficulty mentioned above, R. B. Holt endeavours to deduce the different orders of existents (e.g. physical, biological, mental) from a few logico-mathematical concepts. As logico-mathematical entities these concepts have subsistence as contrasted with the material, living, and mental entities which as particulars exist in space and time. These concepts being purely logical cannot be identified with mind and matter, and the only way to characterize them is to call them 'neutral entities'. The world of subsistents is reached by analysis. It is found that the different entities which compose the universe of being, are, in their last analysis, made up of one substance, for which Holt thinks that 'the least dangerous name is neutral stuff'. (*The Concept of Consciousness*, p. 52) The neutral entities as ultimates are indefinable. They are revealed as entities that are not representative in themselves of any quality, mental or material. They simply are. As Holt points out, 'the simple entities, of which in the last analysis all things are composed, have no substance'. (*Ibid.*, p. 135) The ultimate entities of which all things, physical and mental, are composed are neutral in character. The category of *being* alone can be attributed to them. They are entirely blank and colourless, and no quality can be assigned to them. From such a neutral universe, where the logical analysis terminates, Holt seeks to deduce the particular 'qualified' existents of the universe. In this section we are primarily concerned with the question as to how far Holt is successful in deducing consciousness from these ultimate neutral entities. The definition of consciousness in terms of neutral entities will consist in showing that, on analysis, consciousness reveals its ultimate neutral character. It will have to be shown that the neutral elements which are essentially universals become particularized and assume the form of consciousness. How do the entities which are simple and universal become complex and particular? How is it that the elements which are qualityless and non-temporal become transformed into temporal, qualified, and particular existents? The task is indeed arduous and difficult. It is our business to appraise the measure of

success achieved by the new realist in the difficult venture undertaken by him.

Before proceeding further it seems important to point out that Bertrand Russell expresses his sympathy with the doctrine of neutral entities advocated by the American realists. But he agrees with this view with some important reservations. This he expresses in the following passage:

'The American Realists are partly right, though not wholly, in considering that both mind and matter are composed of a neutral stuff which, in isolation, is neither mental nor material. I should admit this view as regards sensations: what is heard or seen belongs equally to psychology and to physics. But . . . images belong only to the mental world. . . . These are *prima facie* two different kinds of causal laws, one belonging to physics, and the other to psychology. The law of gravitation is a physical law, while the law of association is a psychological law. Sensations are subject to both kinds of laws, and are therefore truly neutral in Holt's sense. But entities subject only to physical laws, or only to psychological laws, are not neutral and may be called respectively purely material and purely mental.' (*Analysis of Mind*, pp. 98-99)

Prof. Alexander's divergence from the theory of neutral entities is, however, more fundamental. According to him all being is determinate being or existence, and is always an occupation of Space-Time. Taken in this sense, there is no such category as bare or neutral being to which some further determination must be added in order to make existence. There are no beings which are not existents. Prof. Alexander himself points out that although he is in sympathy with the spirit of Holt's theory of neutral stuff, in so far as it maintains that 'hierarchy is a scale or complexity of elements made of neutral stuff', still its difference from his own doctrine is vital and consists in the fact that whereas Holt's neutral stuff is not spatio-temporal and its elements are fundamentally the concepts of identity, number, and difference, he maintains that Space-Time is the ultimate stuff whereof all concepts, be it identity, difference, being, universality, or particularity, are composed. Space-Time, Alexander points out, is 'really a stuff' and may also be described as neutral in the sense that it 'is neither matter as such nor mind as such but these are complexes of it'. (For Alexander's discussions on the theory of neutral entities, see his *Space, Time and Deity*, I, Bk. II, Chapters 2 and 3, also II, pp. 114-115)

Holt maintains that the universe is ultimately neither mental nor material, but strictly neutral in character, and

the various entities which constitute the universe 'are of the class of mathematical and logical concepts'. (*The Concept of Consciousness*, p. 136) Matter as conceived by the modern physicists is not composed of physical atoms. The elemental atoms are now analysed into more minute components, such as motions, masses, and electrons, and these entities in their turn are reduced by the mathematicians into laws, and laws are nothing but equations which are mathematical entities or logical concepts. It appears, therefore, 'that the elements to which the physicist has at length reduced matter are mental entities'. (*Ibid.*, p. 116) Similarly, mind is a complex entity and is capable of being reduced to simpler and more fundamental entities. The idealists commit the fallacy of pseudo-simplicity (according to which we assume the 'simplicity of that which is only familiar or stereotyped': R. B. Perry, *Present Philosophical Tendencies*, pp. 66, 271, and 280; also, W. T. Marvin, *The New Realism*, pp. 12-14) in maintaining that ideas form the essential stuff or ultimate core of reality. Prof. Holt represents the view of all new realists in arguing that 'ideas' can never be the universal predicate since it is not the simplest possible entity. Analysis reveals that it is a 'complex entity, not fundamental but definable in terms of simpler entities' (*The Concept of Consciousness*, p. 73), which are not made up of 'the conscious or ideal stuff'. The fault of idealism lies in the fact that it tries to 'define the simpler entities of being in terms of their more complex aggregates, wills, or minds, or experiences'. (*Ibid.*, pp. 78, 79, 83, and 20-22) 'Being real', 'being perceived', 'willed', and 'thought' cannot be universal predicates, because they are not simples. It is evident that 'being real' or 'being thought' or being anything whatsoever is both a more complex and a more special thing than merely being, because it involves 'a relation between at least two terms, while the latter involves but a single term'. (*Ibid.*, pp. 21, 90) *Being* alone is the only universal category, because it denotes everything, but connotes nothing, and 'will suffer no predicates to be joined to it'. Mind and idea are some of the entities that constitute the universe, and 'some predicates can be asserted of mind and idea that cannot be asserted of other things'. (*Ibid.*, pp. 86-87) Hence mind and idea cannot be regarded as the foundation of all know. *Being*, therefore, is found to be the ultimate principle since nothing can be predicated of it.

Having shown that mind is a complex entity, and so cannot assume the status of an ultimate principle, Holt

next proceeds to demonstrate that the various mental contents are capable of being analyzed into simpler terms which are neutral in character. Holt refuses to believe that an entity, because it forms the content of some mind, becomes thereby irrevocably mental. Our various mental contents are in our mind, to be sure, but their 'being in mind' cannot argue their intrinsic mental character. They may be objective, independent entities existing in their own right outside of mind. It is not their essential nature to be in mind; their entry into mind and assuming the status of mental contents may be only an accident. The contents of mind are not unique or subjective in any sense but are neutral and interchangeable. This theory as to the nature of mental contents is advocated by all the American realists who accept the view of consciousness as a relation. On the ground of the theory of external relations, it is maintained that since consciousness is only a relation it is external to the terms which it relates. So those entities which enter into conscious relation are not thereby modified, affected, or altered in any way. Experiencing does not make any difference to the facts. It means that when we experience a certain given object, our experiencing of it, that is, the mere fact that it has entered into our mind, does not make any difference to it, nor can it be cited as an adequate ground to prove its essentially mental nature. Hence the so-called various mental contents are what they are even when they enter our mind. They are objective and independent entities.

If the various mental contents are looked at from this point of view, they are found to be neutral, that is, neither mental nor material. The logical concepts may form the contents of our mind, but no one would on that account say that they are mental. The logical entities, because they happen to be in mind, are therefore 'no more made of mental stuff than a man who happens to be in a regiment is made of regimental stuff'. (*The Concept of Consciousness*, p. 103) They are essentially neutral in character. The same is true of the components of a mind, such as the simple sensations, feelings, and emotions. One characteristic feature of the neutral 'term-entities' is that they form series or are in a series, as the numbers are. A certain serial order is permanently intrinsic to them. The sensations or secondary qualities exhibit this serial property.

¹ Thus the colours for instance form linear series in quite unexpected ways. Red and yellow merge through the orange

ting in a transitive and asymmetrical order; and in this series green quite deserves to take a place. Red and green will not mix in a series except through grey. And one of these series that is transitive cannot be made intransitive, any more than the circle can be squared or hydrogen changed to oxygen.' (*The Concept of Correspondence*, p. 107)

The serial properties which sensations exhibit are obstinate and inviolable like any other logical manifolds. This has led some to construct an algebra of colours and sounds. All sensations if examined closely may be found to reveal this inflexible nature.

Similar remarks apply to pleasures and pains. They are not subjective and unique, but objective and independent entities. If pleasure and pain are regarded as unique qualities, and being experienced by different persons they become different, then all intercommunication becomes impossible. Pleasures and pains are not subjective affections of the mind but are out there in the external world as objective facts waiting to be perceived. The quality of pleasantness is present objectively in a beautiful thing and is sure to be revealed to all except a sorrowful person. The only conclusion is that pleasure and pain are neutral entities and are as amenable to communication as any logical manifold.

The case of emotions is no better. Holt cites James who in an article (*The Place of Affectional Facts in a World of Pure Experience—Essays in Radical Empiricism*) has drawn attention to the amphibious and neutral character of emotions. He shows that emotions looked at from one point of view appear mental and viewed from a different side appear objective. It would be a mistake to suppose that anger, love, and fear are purely mental affections; to a great extent they are affections of the body. The burden of the James-Lange theory is to prove this peculiar character of emotions. That we very often project our subjective affections upon the objects is not only borne out by the rhetorical expressions used in literature, but is also corroborated by many expressions that we daily employ in our common language, such as, sullen sky, weary road, giddy height, etc. The amphibious character of emotions is simply noted by James, but he never calls them neutral which, however, Holt thinks, should be their precise description.

In this way Holt tries to prove that mind and matter are not simple substances, but complexes which can be analyzed into simpler entities and whose fundamentally neutral character can be easily demonstrated. (For the

arguments adduced in support of this view, and which we have summarized in the previous paragraphs, consult *The Concept of Consciousness*, Chapters VI and VII.) The world represents a realm of neutral entities, graded in a strict and inalienable order of complexities. The primary and the fundamental entities are simple ones which cannot be 'precisely' described, but can be 'vaguely' described as the concepts of identity, number, and difference. Beginning with these relatively simple entities it is possible to frame a deductive system in which the development is an asymmetrical transition from simple, fundamental, abstract entities to entities complex, particular, and concrete. There are two important features of this complexity order. Firstly, the more complex entities are more complex and particular, whereas the simple and fundamental entities are abstract. Secondly, in the simple-to-complex neutral series certain entities appear which do not seem to consist of the simpler entities that are more fundamental. This is particularly evident in the case of qualities. The qualities appear independent and seem resistant to analysis. But this seeming independence of qualities is gradually disappearing. 'The tendency is, and has always been, for those entities, whether mathematical, physical, or ideal, that seem unresolvable into simpler components, to be nevertheless, after all, resolved.' (*Ibid.*, p. 163) It has been possible to define secondary qualities in terms of entities that are non-qualitative (e.g. the discovery of the serial properties of colours; see *Ibid.*, p. 167), and with the gradual development of scientific knowledge, it is expected that what is now true of secondary qualities only will be 'true of all qualities'.

The possibility of such a deductive system rests upon the theory defended by Holt that the propositions are active and can 'generate of their own motion further terms and propositions'. (*Ibid.*, p. 16) It is maintained that the fundamental logical propositions have intrinsic activity and generative power. If this activity of propositions is granted, it becomes possible to exhibit the order of advance in the deductive system wherein the entities are graded in an asymmetrical order of simple-to-complex hierarchy. In the simple-to-complex hierarchy consciousness comes almost at the end of the series just prior to the values which form the apex. In this rigidly deductive system there is no gap anywhere. The transitions from mathematical concepts to space, from space to matter, from matter to life, from life to consciousness, and from consciousness to the realm of values, are

marked by an unbroken continuity. The different orders of being of the complexity series are not intrinsically or substantially distinct from one another, and even when consciousness appears there is absolutely 'no break in the series'. Consciousness is not a new substance and can be 'readily and completely defined in terms of the entities that have appeared before'. (For Holt's sketch of the deductive system, see *The Concept of Consciousness*, Chapter VIII.) There is, then, no difference of substance between consciousness and the original terms (certain neutral entities) from which it is deduced. The only difference is that the former is more complex than the latter. Consciousness is only a more complex aggregate than the fundamental neutral entities. The difference is not of stuff, but of relation. Holt's theory is nothing if not radical in character. Such radicalism is clearly exhibited in the reduction, without residue, of qualitative to non-qualitative, and of consciousness to more primitive entities. Holt's doctrine is primarily an attack on all forms of substance-philosophies. Mind and matter are not substantial entities; both are ultimately deducible from a more primal stuff. This derivation, however, does not mean an obliteration of the distinction between the two. The breakdown of the substance-conception, on the other hand, renders the distinction between mind and matter more precise. (See *The Concept of Consciousness*, p. 84) The different forms of Monism (Idealism, Materialism) wipe out the distinction between mind and matter, either by reducing matter to mind or by reducing mind to matter. Holt, on the other hand, recognises that the emergence of qualitative differences is compatible with the fact of continuity. The asymmetrical series of simple-to-complex entities is continuous and fluent throughout, although the entities forming the hierarchy are qualitatively distinct. If we seek for the precise meaning of the term 'qualitative distinctness', we shall find that it consists simply in the distinctness of organisation. A certain specific type of organisation among a number of independent entities constitutes a whole and it is this whole which reveals a novel quality. The several parts constituting the whole are independent entities possessing distinct properties of their own. But when the separate entities combine to form a whole, the properties of the separate parts act in co-operation, and the whole which results from such action, performs a new function which the several parts as independent entities could never perform. It means simply that here we have a new whole, a new synthesis, the emergence

of a qualitatively novel entity. The resultant whole exhibits a new quality which the independent entities in isolation did not possess. This should not however be taken to mean that the whole reveals a quality absolutely new which resists further analysis. The whole is nothing more than the parts in a certain definite organization. It can be completely analysed without remainder into its parts of which it is only a complex aggregate. The component parts together with the organizing relation compose the whole. It seems clear enough that the recognition of qualitatively novel entities does not mean that such entities are irreducible or ultimate, rendering continuous transition from one entity to another in the complexity series impossible. On the other hand, the qualides being amenable to analysis without residue, the barrier between them completely breaks down.

E. G. Spaulding, another American realist, gives us a conception of emergence somewhat analogous to that of Holt, yet differing from it in some vital and important points. We shall consider his doctrine very briefly here.

Spaulding asserts that a realist is committed to the doctrine of ontological pluralism. He cannot reduce the plurality of entities of the universe to one kind and one entity. The different sciences (mathematics, physics, chemistry, biology, psychology, etc.) and logic, along with religion and art, give us an almost inexhaustible list of entities, and if the facts of experience are not to be ignored, it becomes simply impossible to reduce them all either numerically or qualitatively to a single principle. The realist, therefore,

'can accept no one quality or substance, no one "stuff", either mind or matter, or some unknown and unknowable underlying entity, to which all other entities are reducible, and which they ultimately are, or of which they are manifestations. Rather for him there are kinds that are irreducibly different, and there is an irreducible plurality of these kinds.'
(*The New Rationalism*, p. 216)

The acceptance of ontological pluralism does not, however, mean a denial of the fact that the numerically and qualitatively distinct entities of the universe are related. Relation certainly exists among these entities, but not in the sense of causal dependence. If relation meant simply causal dependence, it would have been an easy matter to reach a monistic conclusion; it would not only have been possible to reduce different entities to one kind, but to one entity also. But on empirical evidence it has been

found that relations are external to the terms and the terms are also independent of such relation, and such a hypothesis surely precludes the possibility of a monistic ontology.

The principal types of relation, according to Spaulding, may be distinguished as (1) additive (denoted by the relation 'and'), and (2) non-additive, which consists of the relations that generate classes, series, whole, and the like. These two different types of relation give us two different views of reality,—reality as *universe* and reality as *cosmos*. The *universe* is 'the totality of all entities, whatever these may be, as related merely additively'. The *cosmos* is this 'universe of entities as related other than merely additively'. 'The *universe-cosmos* is all-inclusive.' (*The New Rationalism*, p. 488)

It is an empirical fact that 'in the physical world (and elsewhere) parts as non-additively organized form a whole which has characteristics that are qualitatively different from the characteristics of parts' (e.g. combination of hydrogen and oxygen into water). The new properties thus generated in the whole are not reducible to the properties of the parts, nor can the parts be considered as causes of the novelty in the whole. The process whereby the new qualities through the organization of the parts form into whole, may be described as 'creative synthesis'. (Cf. *Ibid.*, pp. 447 ff.)

Applying this whole-part relation to an organism it is found that the organism 'is a biological individual, with specific characteristics that follow biological laws; but it is also a physical complex of forces that follow the laws of chemistry. For each biological quality and its changes there are corresponding purely physical and chemical qualities and changes, but this relation of correspondence is not causal.' The same relation applied to a person reveals that a person is more than the electrons, atoms, molecules, and organs, which mechanics, physics, chemistry, and biology reveal. He is conscious as well as physical, chemical, and biological; he is an ethical and rational being. But 'neither his ethical, nor his rational nature conflicts with his biological, his physical, or his chemical characteristics, since by virtue of the former he is something more than—he is over and above—the latter'. Further, 'the particular ethical and rational characteristics presuppose the particular biological, physical, and chemical characteristics embodied in any one human individual, but they cannot be derived from or identified with these latter, though, once

discovered, they can in some way be correlated with them." (Ibid., pp. 448-450)

In explaining the relation between the different levels of reality, Spaulding formulates an important principle which should guide us in determining the relation between any two levels. The guiding principle may be stated as follows:

" As between any two levels there is (1) no occasion for conflict, but only opportunity for compatibility; yet (2) no possibility of derivation and deduction of higher levels from lower, and therefore (3) no complete identity of higher levels with lower, so that (4) all levels that are higher in relation to others as lower are primarily inaccessible and ascertainable only by inductive and empirical investigation, although (5) once discovered, the compatibility and correlation of higher levels with lower is also determinable, so that (6) subsequently compatibilities in terms of lower levels may be made as the means of control and prediction at higher levels, even as this is done, as a matter of fact, in the instance of every correlation of independent (lower) and dependent variable (higher) level." (Ibid. *New Realism*, pp. 448-450)

Points 2 and 3 are significant in the above quotation and bring into relief the difference between Holt and Spaulding in their respective notions of emergence. Holt is definite so far as the deduction of the higher from the lower is concerned. He not only admits the logical priority of the lower over the higher, but thinks that the higher can be derived from the lower and is also completely and without residue reducible thereto. The higher and the lower levels of reality, according to Holt, are composed of the same neutral stuff, and their difference lies only in their respective organizations and complexity of structure. But for Spaulding the recognition of qualitative distinctions intrinsic to the different levels of reality and the impossibility of derivation and deduction of higher levels from the lower are not inconsistent with the fact of their relatedness. The relatedness of the different orders of reality and their qualitative independence are not incompatible. This view is consistent with his ontological pluralism according to which the different entities of the universe are incapable of being reduced either to one kind or to one entity. The idealists reduce the different entities of the universe both to one kind and to one entity. Realists, like Holt, reduce the entities of the universe to one kind, but not to one entity. The pluralism advocated by Holt is thus different from that of Spaulding. Unlike Spaulding, Holt advocates the doctrine that reality can be reduced to one kind (i.e. the theory of neutral stuff according to which mind and matter are ultimately

composed of the same neutral stuff), but not to one entity. He is a pluralist in so far as he accepts a plurality of simple, indefinable logico-mathematical entities as the ultimate stuff of reality. Spaulding is in common with Holt in recognizing that the different levels of reality involve a sort of logical hierarchy and can be graded into a series according to the logical priority of the lower over the higher. But he differs from Holt in so far as he maintains that it is impossible to reduce the plurality of entities to one stuff or to one kind and that therefore we are bound to accept the ultimate irreducible character of different fundamental entities with which we are to start. It is only after we have accepted the intrinsically distinct kinds of entities as ultimate and their irreducible character, that we are capable of grading them into a logical hierarchy of simple to complex and lower to higher.

Spaulding's conception of the qualitative independence of the different levels of reality precludes the possibility of the universal application of the principle of continuity. He is unable to declare with Holt that an unbroken continuity marks the different orders of reality. He cannot predict like Holt even though the data for such prediction might be meagre, that since at present some qualities have been reduced to more fundamental entities, with increasing knowledge, 'the seeming independence' of qualities is bound to disappear. Spaulding cannot do so because he is committed to the conception that the qualities are ultimate and the higher organized wholes are incapable of being reduced to the lower ones, and, therefore, any attempt to deduce the higher from the lower is bound to prove futile. He is thus obliged to admit both continuity and discontinuity and cannot, like Holt, regard the latter as only seeming or apparent. Both continuity and discontinuity are ultimate and one of these cannot be stressed at the expense of the other. In a realistic universe place must be found for entities additively related as well as for those related non-additively, for mechanical aggregates as well as for organized qualitative wholes.

In this view Spaulding is supported by another American realist of some prominence,—W. T. Marvin. Marvin explains that the logical analysis of reality reveals it to consist of several strata or levels, which from one point of view form a logical hierarchy in which the different levels are graded according to their logical priority, and, therefore, exhibit, in some sense, a continuity. But such logical continuity is not to be found

throughout existence. Science is constantly discovering 'hidden continuity and 'thereby suggests that no discontinuity is ultimate, yet the facts as we perceive them seem to discourage forever the hope that the discontinuity can be eliminated.' In our experience we find that every moment the new or the logically discontinuous is arising; 'and it would seem that genuine creative evolution is the story of each thing that exists.' Like Spaulding, Marvin also seeks to formulate a theory of reality on the recognition of both continuity and discontinuity as features of experience and accordingly he defines reality as 'a system of universal laws and particular entities'. The definition recognizes both continuity and discontinuity as genuine features of experience. The elements of continuity are due to the presence of universal laws in the system, and the discontinuous is manifested in the particular entities. Marvin maintains, therefore, that 'in part the existent can be explained by the universals, and in part it can be explained only in terms of the actual particulars revealed to perception. Thus each existential entity seems both a creature of causal law, and a centre of spontaneous or creative evolution.' (*A First Book of Metaphysics*, pp. 143-149)

Thus according to Marvin the different strata or levels of reality are continuous in so far as they are declared by the sciences to be guided by certain universal laws; their unity and continuity are due to the fact that they are amenable to certain universal laws. Besides these universal and common characteristics, the different levels of reality also exhibit certain particular or qualitatively novel features. These latter prove refractory to the influence of universal laws. Herein comes discontinuity which can be ignored only by doing violence to the reality of unique and qualitatively distinct features characterizing the different levels of reality. Marvin, therefore, thinks that discontinuity is as much an ultimate fact of our experience as continuity, and the recognition of such a position makes it impossible to reduce the particulars and the qualitatively novel entities to more primitive and simple ones. So Marvin urges that wherever the entities prove refractory to further reduction it seems reasonable to accept them as such instead of looking for seeming duplicity where it does not really exist. If the differences are irreducible, they are to be recognized; and, on the basis of such recognition, it must be shown that the existence of differences is not incompatible with the fact of continuity. The ideal of explanation certainly consists

in the exhibition of continuity characterizing the different levels of reality, but the continuity should not be shown in such a manner as to obliterate the unique, particular differences. The account of continuity which Holt gives seems to result in the negation of differences.

We have noticed the points of similarity and difference between the different theories of emergence advocated by the American realists. So far as their ontological position is concerned the American realists advocate pluralism. But their pluralism is not all of the same type. Whereas Holt advocates a pluralism in which the ultimate entities, though numerically distinct, are made up of the same stuff, and therefore of the same kind, according to Spaulding and Marvin, the entities with which we have got to start are not of the same substance or kind. Spaulding and Marvin recognize the irreducible character of the organized wholes or qualitatively novel entities, but they admit, at the same time, that the different levels of reality can be arranged in a simple-to-complex logical order of hierarchy. In this way a continuity between the different orders of reality can be exhibited. But this continuity is not gained at the cost of intrinsic qualitative differences which characterize the different levels. Fidelity to facts demands a recognition of both continuity and discontinuity as features of experience. Qualitative differences are no less real than the fact of continuity. In admitting, as against Holt, the irreducible character of organized qualitative wholes, Spaulding and Marvin seem to have been more faithful to facts. Holt has carried his logical method to its extreme and the process of abstraction seems to have done its worst havoc by eliminating the unique qualitative differences intrinsic to the different orders of reality.

Analysis is the most effective weapon of the neo-realists. It is believed that by applying the method of analysis the essential nature of any entity can be laid bare. The method is of universal validity and it can be applied with great efficacy to any object without detriment to its essential nature. It can be applied with as much success to the aggregates or mere collections as to the organized wholes or qualitatively novel entities. It is this belief in the universal efficacy of the analytic method that has led Holt to apply it to the explanation of the nature of consciousness. Holt believes, as we have seen, that the independence of qualities is only 'seeming'. The qualities being complex and not simple, their complete explanation can be found by analyzing

them into their component parts and their constituting relation. Once they are completely analyzed, it will be found that they are composed of entities which are of a more primitive character. The process of analysis applied to them would reveal their essential nature and would serve to exhibit their identity (at least in so far as the substance of which they are composed is concerned), with entities of a lower level. In this way consciousness is sought to be broken up into its constituents and their composing relation, and it is shown that the elements composing consciousness are identical in substance with the primal neutral stuff. Holt's contention is that consciousness can be reduced completely and without residue to more fundamental neutral entities. The process of reduction is effected by the application of the method of analysis, the latter being carried to its furthest reach.

Analysis is the philosophical method which always reaches to the parts, to the elements: it brings about a simplification by a process of progressive abstraction. The new realists generally overestimate the value of analysis. They do not see its limitations. The method is most effective in its application to mechanical aggregates, but the organized wholes may not be found amenable to it. Consciousness as a novel quality or genuine whole may be analyzed into its different parts and their composing relation. But its complete explanation cannot be found in its constituents and their composing relation. As a new qualitative whole, it contains certain unique features which seem to defy analysis. The constituent parts can be dismembered from the whole, but the whole cannot be constructed out of parts. So it seems impossible to offer complete explanation of consciousness in terms of neutral entities. Once consciousness is broken up into its ultimate constituents, it is impossible to reconstruct it from those constituent elements. Its uniqueness is bound to be lost if one seeks to understand its nature by analysis. The analytical method always tries to understand the higher in terms of the lower. The process of reduction adopted by Holt is nothing new. It was tried by the advocates of the mechanical theory of evolution. The mechanical theory is now being looked upon with disfavour by modern biologists. They have sought to liberate biology from the influence of mechanical sciences, and make it autonomous and independent. They have shown in the clearest possible manner the utter inadequacy of mechanical concepts in the field of biology. Although

in a slightly different way Holt has tried to revive the analytical method employed by the mechanists in his interpretation of consciousness, the result has been the same. In his attempt to explain the higher in terms of the lower we meet with the same process of levelling down. The analytic method by a process of progressive abstraction completely eliminates the unique features of consciousness which it is supposed to explain. The procedure adopted by Holt to interpret the nature of consciousness is vitiated by his failure to recognize the limitations of the analytic method.

The theories advocated by Spaulding and Marvin recognize that the different levels of reality are different in kind and not merely in degree and, therefore, the higher cannot be deduced from the lower. But they emphasize too much the particular differences and ignore the unity underlying the different orders of reality. Pluralism is not ultimate. The differences are as much real as the unity which pervades them. Unity cannot be sacrificed at the expense of differences, nor can the differences be sacrificed at the cost of unity. Both are real and have to be reconciled.

Let us now make a few critical remarks on Holt's doctrine of neutralism. Our object throughout the criticism will be to judge the validity of the theory in its application to the problem of consciousness. We have already referred to the criticisms of Holt's theory of neutral being by Prof. Alexander. According to Alexander, *being* cannot be neutral, all *being* being determinate existence. In this view he is supported by the idealists from whom he differs fundamentally in other respects. It reminds us of Hegel's remark that pure being (absolutely predicateless, such as Holt formulates) is identical with nothing, and of his sarcastic comment on Schelling's theory of a neutral absolute,—a theory very closely analogous to Holt's theory of neutral being,—that the absolute is the night, in which all cows are black. The grounds upon which criticisms of theories like those of Spinoza, Schelling, and other abstract monists are based, primarily relate to the conception of pure being in these theories as too abstract, and as absolutely predicateless, a being utterly incomprehensible by thought. Similar remarks may be applied with equal force to Holt's conception of neutral being, at least in so far as it is conceived as characterless. Such a being by its very nature is unknown, since no concepts whereby thought comprehends its objects are in any sense applicable to it. The realist's being is, to use

Bradley's expression, simply the 'that', the bare existence. The real being should be determinate through and through, and should in every instance be an ideal combination of the 'that' and the 'what', where bare existence or the 'that' (existence divorced from all characters and so from all meaning) being mediated by the 'what' becomes determinate, and significant. In the real, determinate existence the 'that' and the 'what', the existent and its nature, are inseparable. The conception of a neutral being as the negation of all determinations, has been reached by carrying the process of logical abstraction and analysis to its utmost limit, and the result has been the abolition of concrete differences.

Holt points out that the ultimates of the neutral realm being simple and predicateless and therefore indefinable, ascription of any definite character to them is difficult. The simples where logical analysis terminates, may be only 'vaguely described' as identity, difference, and number. But if the entities are by hypothesis conceived as simples and indefinables, do they really admit of even such 'vague' description? Any kind of description, however 'vague' we may take it to be, is not possible without ascription of some predicate. So the realist, it seems to me, is involved in a dilemma. If the neutral entities are definable, they must have predicates, and therefore they must be complexes and not simples; if indefinable and characterless, they are indistinguishable from pure negation. This 'vague' description of neutral entities is not all. They have been further discriminated into terms and relations. 'Such procedure of the realist raises the question as to the validity of classifying into groups entities that are supposedly simple, and therefore devoid of difference.' The difficulty is evidently one which is bound to appear when a philosopher wavers between the desire to be conceptually logical and therefore remote from sensory experience, and the desire to be concretely ontological and therefore true to the facts of empirical existence.

To avoid the charge of conceiving his neutral universe as too static, Holt is anxious to introduce into it some dynamic element in the shape of what he describes as logical activity or generative power of propositions and terms. This logical activity does not involve time; but time involves it, being a special case thereof. This activity is neither spatial nor temporal.' (See *The Concept of Consciousness*, p. 18) We can see quite well that Prof. Alexander would dissociate himself completely from this

view. He would not recognize any activity except that of Space-Time. All motion or activity is but modification of Space-Time which is the ultimate. Prof. Alexander himself points out that he finds it 'impossible . . . to agree with Mr. Holt's fundamental doctrine that propositions are active', which he 'could understand if they are taken to be relations of fact as in Space-Time'. (*Space, Time and Duty*, I, pp. 114-15, note.)

In the realistic universe the terms and relations subsist as independent entities. Terms enter into relations, but are not modified thereby, the relations being only external. This implies that the terms and the relations are mutually independent entities and so are not affected or altered in any way even when they enter into relationship with one another. The activity of propositions, referred to above, is displayed in bringing into being complex entities out of simpler ones. The terms and relations are, as ultimates, simple entities. But, by dint of their intrinsic power, they generate further terms and propositions which are necessarily of a more complex character. The necessary implication of all this is that the terms have to enter into relations in order that more complex entities may arise, and it is the generative power in the terms and relations that has rendered possible the fact that the relations should relate and the terms should enter into such relationship. But even despite this assumption, viz. of propositional activity, the realist may find that his relations do not relate.

Both terms and relations are simple, independent, and indefinable entities. Relations, again, are external to the terms which they relate. The problem is: is relation possible under such conditions? If it is possible, the realist is safe; if it is not, the whole realistic structure falls to pieces.

If the relations and terms are taken as ultimate, it seems impossible to bring the terms into relation. The relation cannot be ultimately external to the terms. Suppose A and B are two terms related by the relation R. If relation is to hold between them, they must be distinguished. There must be some kind of difference between them; at least they must be numerically distinguished as two entities if they are to be terms with a relation between them. Thus discrimination and relation of distinction is fundamental in all relation. But where such discrimination is possible, there must already be in the discriminated terms some difference to afford a basis for discrimination. Only what is already different can be distinguished. Now

if the two terms A and B are different, they are to be distinguished also from R their relation, which has being external to them. We are thus confronted with three distinct entities, A, B, and R. A and B are distinct from each other and both of them are distinct from R. If A and B be distinct from R, how can they be related by R? If R is to relate at all, it must be in some sense homogeneous with the terms it would seek to relate, that is, it must be somehow grounded in the nature of the terms. Accordingly, to get the terms related there must be other relations to relate the original relation R to A and to B, and also, as alone consistent with this implication, still other relations to relate these relations to one another, and so on, in an infinite series. The theory of external relation thus leads inevitably to indefinite regress. And the realist is bound to face this consequence of his theory if he adheres to the assumption that terms and relations are ultimate, that is, the terms and relations are distinct entities and so the relations are external to the terms. The realist does not gain much by attributing the notion of distinctness to his terms and relations instead of the notion of independence. External relations do not relate.

Apart from the inherent absurdity of the theory of external relations, we may consider some of its implications. It is simply inconceivable that all relations are in the end external to their terms. If the relation is wholly indifferent to the terms, it is nothing short of a miracle that it should ever relate them or that the terms should ever enter into such relationship. If we seek for the grounds of such relation, we find that they are not forthcoming. It appears a mystery that the relation should relate at all if it has no foundation in the nature of the terms. The terms themselves imply the relation, and the relation in its turn is grounded in the nature of the terms. If this be not the case, and if the relation be external to the terms and absolutely indifferent thereto, the logical consequence is that all relations have to be dismissed as pure illusions and we are left with a chaotic plurality of entities hard and recalcitrant as atoms. The universe in which the realist lands us is not the related and ordered cosmos, but is, so to say, a pluriverse, a chaos. The entities which constitute the realistic universe are, as it were, so many little absolutes, which are not really connected, but are only contemplated as related. Their relations are not genuine, but only apparent. It is only some intellectual perversity which persists in thinking them to

form a system. (For a fuller criticism of the doctrine of external relations, consult: F. H. Bradley, *Appearance and Reality*, Chapters 1-3; A. E. Taylor, *Elements of Metaphysics*, Bk. I, Chapter IV; E. Joachim, *The Nature of Truth*, Chapter II; May Sinclair, *The New Idealism*, pp. 37-42; Josiah Royce, *The World and the Individual*, First Series, Supplementary Essay.)

No thoroughgoing theory of external relations can avoid the disastrous consequences referred to above. And when it is applied to interpret the concept of the whole, the consequences are found to be no less disastrous. How would the realist explain the notion of the whole with his theory of external relations? His explanation would be something like this. He would not admit the priority of wholes to parts, but would regard the parts as ultimate and the wholes as in some sense constructions therefrom. The parts exist as independent entities with characteristics of their own. But when they enter into a certain relation (which of course is external to them) they acquire an added characteristic by virtue of which they perform a different function. The qualities which they possessed before they had entered into any such relation may be described as their native or original characters: and the properties which are added to them posterior to their entering into the new relationship, may be called acquired or relative characters. It should be noted also that the accession of new relationship does not imply any forfeiture of the original properties belonging to parts. It simply means that the parts have now an added character which did not belong to them prior to such relationship. Relation does not affect or modify the parts; the parts as related retain their native characters. The relation only makes this difference to the parts that entering into a relationship means for them the acquisition of a new character in addition to those which they already possessed as independent entities outside of such relation. As elements of a whole the parts acquire a new quality and perform a new function. How does such transformation take place in the parts? It is due to the fact that as elements of a whole they enter into a specific type of relation which imports to them a specific form of organization. Being thus organized the parts act in co-operation and acquire a new property and perform a new function although they still preserve their original character and original function, which they would still display outside of this specific relationship. Are such organized wholes reducible or irreducible? There is a difference of opinion

among the realists as regards the answer to this question. Realists accordingly fall into two classes: (1) reductive neutralists, and (2) emergent neutralists. Holt belongs to the former group and Spaulding and Marvin to the latter. The reductive neutralists maintain, to quote Broad to whom we owe this nomenclature, that 'neither mentality nor materiality is a differentiating attribute, but both are reducible characteristics'. (*The Mind and Its Place in Nature*, p. 810) According to this group of realists, any organized whole, whether it be matter, life, or mind, is ultimately reducible to simpler neutral entities without residue. According to the emergent neutralists, on the other hand, 'neither mentality nor materiality is a differentiating attribute, but both are emergent characteristics'. The terms 'differentiating attribute' and 'emergent' need some explanation. Every substance possesses some special attribute (besides other attributes), which makes it a substance of such and such a kind, e.g. a material or a mental substance. Now this special attribute is known as a differentiating attribute. An emergent quality is a simple quality which belongs to the complex as a whole and not to its parts and which further is not analyzable into a conjunction and disjunction of other attributes. (See *ibid.*, pp. 22-23) According to emergent neutralism, therefore, mind and matter are not substantially and intrinsically distinct from each other, that is, mentality and materiality are not their differentiating attributes, but they are nevertheless emergent characteristics, in the sense that they are simple qualities and are further irreducible.

We have already indicated how the realist would define a whole. The reductive neutralist would regard such an organized whole as reducible without remainder to more primitive elements, whereas the emergent realist would not think such reduction possible. The reductive realist maintains that a whole is on analysis found to consist of its several parts and their relation. It has no special quality that is irreducible. He admits that matter, life, and mind are such wholes which exhibit novel qualities. But the novelty evinced by them is nothing absolutely new. It is clearly analyzable into non-qualitative elements. Take the case of consciousness or mind. It is a new whole, a new quality. But it can be analyzed without remainder into simpler components (e.g. physico-chemical elements and a certain specific organizing relation into which these elements enter and thereby create this new qualitative whole). 'The whole is nothing more

than the parts thus organized.' (E. B. Holt, *The Paradise Wish*, p. 133)

Is consciousness nothing more than the parts thus organized? The organizing relation in this case must be, by the realist's hypothesis, external to the parts. Can external relation, however complex it may be, constitute a whole out of independent parts? If the relations are external to the parts, they can at best compose certain aggregates or collections. The very conception of a whole demands that it cannot be identified with its parts and cannot be constructed therefrom. It, in some sense, must transcend its parts and cannot be completely analysed in terms thereof. The parts can retain their identity and independence if they are constituents of an aggregate and collection. But if they are members (not merely elements) of a whole, they cannot be conceived of as being uninfluenced in any way by the whole. The whole and the parts are to be conceived as correlative aspects and together form a systematic unity. The whole and the parts are equally real and equally interdependent and this is so because the whole is for the members as well as the members for the whole. In such a relation the members influence the whole, and the whole in its turn affects in some way each and every member composing the whole. (See for a fuller discussion, A. R. Taylor's *Elements of Metaphysics*, Bk. II, Chapter 2.) If the relation be external to the parts, the parts are independent of the whole, and the whole is independent of the parts, and we get only an aggregate and not a genuine whole.

The reductive neutralist admits that the parts undergo some kind of transformation when they form elements of the whole. They perform a different function and acquire a new quality when they are organized into such a whole. But how is it possible to account for such a transformation if the organizing relation is external to the parts? On the external relation theory no modification of parts is explicable since the relation, as independent, is only superimposed upon the parts. The relation is only accidental and not constitutive of the parts which it relates. But if the reductive neutralist persists in asserting that the organizing relation (though it be external) synthesizes the parts in such a way as to create out of them a novel qualitative whole, it is impossible to conceive how the relations are merely external and do not modify the parts in some way or other, or are not, in some sense, grounded in their nature. If he admits that the novelty

engendered is entirely due to the organizing relation, then the parts are in some sense affected by entering into such relation, and the latter cannot be regarded as entirely external and independent but should be regarded, on the other hand, as constitutive of the parts which it relates. The parts imply the relation and the relation is founded in the nature of the parts. Unless the theory of external relation be abandoned, no true explanation of the constitution of a genuine whole is possible. It is not possible to adhere to the notion of external relation (as the reductive neutralist does) and then attempt to construct a novel qualitative whole out of independent parts on the basis of such relation. If the reductive realist accepts the notion of a whole, he is bound to admit that relations are not external, but, in some way, affect the parts. The external relation theory is not compatible with the conception of a genuine or real whole.

These remarks apply not only to the reductive neutralist but also to the emergent neutralist. The emergent neutralist cannot regard the whole as irreducible and ultimate on the basis of the external theory of relations. Such a conception is inconsistent with his fundamental assumption.

It becomes clear, now, that if the organizing relation in a whole is constitutive of its parts and affects them in some sense, then such a whole cannot be analyzed completely without residue into its parts. Analysis is incapable of revealing the novel quality exhibited by the whole. The parts as members of the whole have no being apart from and independently of such a whole. The parts can be examined as dismembered from the whole, but the whole cannot be reconstructed therefrom. This becomes particularly evident in the case of consciousness. It is possible to analyze consciousness into simpler components, such as physico-chemical and vital. But these components in a certain specific relation would not give us consciousness. We have to take into account the fact that as constituents of consciousness the physico-chemical and vital elements do not perform the same function that they would as independent entities; but as members of a new whole they perform an altogether different function. Consciousness may thus be composed of simpler elements, but it cannot be explained completely in terms thereof. The new quality is created by the transformation of the character of the original elements. If consciousness is a real whole, it cannot be explained by analysis into simpler terms. Being scyt-

thing more than the elements which enter into its composition, appropriate categories are necessary for its adequate interpretation. The categories which apply only to merely physico-chemical or vital phenomena, are incapable of explaining its nature.

The modern developments in the sciences of psychology and biology have been largely due to the fact that they have now been liberated from the influence of the mechanical sciences, and becoming thus autonomous and independent, are beginning to use conceptions which are adequate to the interpretation of phenomena with which they are concerned. J. S. Haldane and J. A. Thomson in England, and Prof. Conklin and Prof. Parker in America, to name only a few of the more prominent biologists of the day, have shown in the most radical fashion the futility of the mechanical hypothesis in their science. They have shown that life cannot be mechanized. To explain its characteristic quality more adequate conceptions are necessary. Similarly, in the field of psychology we have now the *Gestalt* school. They have challenged the view of the structural psychologists that mind is a complex of simplest possible elements. They have abandoned all attempts to reach the elements and build up the structure of mind from complexes of elements. The smallest element in *Gestalt* psychology is already a structure, a meaningful, articulated whole. If these be the conclusions of modern psychology, how can the mind be analyzed into simpler elements?

At this point it becomes necessary to say a few words on the nature of explanation. Analysis is a mode of explanation. In some cases it has application and there it is extremely fruitful. It always explains a thing by reducing it to its simplest components, that is, by breaking up the whole into its constituent parts. Analysis, as it has been described by the realist, always starts with a whole, and always reaches to the parts. This means that in analysis the whole is sought to be explained in terms of its parts. Where analysis is regarded as the only *vera* method of explanation, the priority of the parts over the whole is assumed as a matter of course. If the parts contain in themselves the complete explanation of the whole, in such cases alone is analysis applicable with any chance of success. In analytic explanation the parts being given a priority over the whole, we have the sort of explanation which gives the priority of the lower over the higher. Thus, in every case of analysis the higher is sought to be explained in terms of the lower. We shall

be here concerned chiefly with the validity of this mode of explanation.

Analysis is the chief method of scientific explanation. It explains a given phenomenon by tracing it back to its beginnings or referring it to its antecedent conditions. This method which has proved invaluable in scientific research, is sought to be transferred by the realist to the domain of philosophy. Explanation in this sense is essentially explanation of the later by the earlier, or an interpretation of the higher by the lower, or the more developed by the less developed. The method is surely unimpeachable in the mechanical sciences, where explanation, in the end, is no more than a description in as simple and general terms as possible of the way in which a particular thing behaves. In such cases the facts to be dealt with are of the same order, and the configuration of facts may be treated as the mechanical resultant of its antecedents. There is equivalence, just because there is no real gain in the process; there is change, but no advance, nothing new. Everything remains on the same level. But in sciences like biology and psychology where we are concerned with 'real growth', and where the element of time makes a real difference, the retrospective mode of explanation, which reduces everything to the dead level of equivalence, seems to have no application. If it be admitted that the vital and conscious phenomena are characterized by real change, then the method which interprets the more developed by the less developed, and thus equates the final stages of the process with its earlier beginnings, is surely inapplicable to them. The distinctive qualities which such phenomena exhibit cannot be detected in the antecedent conditions from which they are sought to be derived. It is only an illegitimate mode of explanation which treats them as no more than their antecedent conditions and seeks to reduce them to simpler terms, thus bringing them on to the same plane with facts of the lower level. In such explanation the simplification is brought about by a process of progressive abstraction which completely eliminates the characteristic features of the concrete fact supposed to be explained. By this process, the concrete fact is reduced to an abstract formula which may be of immense practical utility but can in no way form an unaltered transcript of the concrete fact which it is supposed to explain. The process of levelling down is the characteristic feature of the analytic method. But it is hardly applicable to the features of experience which are

marked by 'real process', and 'real growth'. (Cf. A. S. Pringle-Pattison, *The Idea of God*, pp. 81-83)

All logical theories of reality have proved themselves perfectly barren when they have been confronted with such features of experience as exhibit real change and development. They have failed to take into account such empirical novelties as the phenomena of 'creative synthesis' and 'creative evolution' have made us familiar with. It amply indicates the fact that whenever philosophers have proceeded with a belief in the universal validity of the methods of abstraction and analysis, the inevitable result has been the obliteration of qualitative differences as they exist for our experience, and along with it the utter neglect of time as an effective factor in the constitution of the empirical world. If evolution is a real process, time surely forms its chief ingredient; and it is time which is responsible for the new beginnings which are constantly appearing in the course of evolutionary process. If time implies real change and duration, repetition of process is impossible, and the later process cannot, therefore, be explained in terms of the earlier one, because the later will involve something more, some novel feature which cannot be discovered in the earlier. Time is not an illusion, but a real feature of our experience, which we cannot ignore in any explanation of reality, if our explanation is to be true to facts and not merely mythological. In the reductive realist's attempt to explain consciousness in terms of certain abstract neutral entities, there is evident a distinctive lack of appreciation of the effectiveness of time as a real and determining factor of the empirical world. The reductive neutralist refuses to take notice of this 'effectiveness' of time and deludes himself into the belief that consciousness is analysable, without residue, into simpler neutral entities.

The realist's universe is non-temporal and non-spatial and the entities which have being in it are logical concepts and, as such, abstract, non-temporal, and qualityless. In his quest for the ultimates of reality, the realist reaches by a process of abstraction to the neutral entities which are simple and indefinable, and then by the method of deduction he seeks to interpret the empirical world, which is concrete and rich in qualities, in terms thereof. The concrete, empirical world with its qualitative features is dissolved into a plurality of entities, characterless, abstract and non-temporal. The entities of the neutral realm are, as logical concepts, evidently universals, devoid of all sensuous and qualitative character pertaining to our

temporal experiences. How is it possible to deduce from these abstract, non-temporal, and logical universals the concrete, temporal, and particular existents of the empirical world? The realist fails to account for this transition from the universal and non-temporal to the particular and temporal. He merges the temporal and the particular in the universal and the non-temporal by obliterating all qualitative differences from the former. His method of explanation does not allow him to admit that time is in any sense constitutive of the world of experience. The process of reduction is carried to its utmost limit with the result that the qualitative natures are completely banished from the world.

To discover the real character of any process it is necessary to consider the process as a whole. If the evolutionary process is regarded as continuous, the emergence of qualitative novelties (mind, life, and matter) therein is not incompatible with its continuity. When we are concerned with the interpretation of the later stages of this process, we must not interpret them in terms of the earlier, because as stages of a process (which is a whole) the later always contain something more than the earlier and, therefore, qualitatively distinct therefrom. The reality, which is revealed in the process as a whole, is always more fully manifested in the later stages than in the earlier. The final term of the process is always more real than its beginnings. We have to recognize levels and degrees of reality, and for the explanation of each level appropriate conceptions must be employed.

CHAPTER II

The Ontology of Neo-Realism and its Bearing on the Problem of Consciousness (Continued)

We have endeavoured to show in the previous chapter that the American new realist is unable, with his theory of external relations and his method of analysis, to deduce consciousness from a few simple and indefinable neutral entities. Such deduction is based upon an utter neglect of the element of time as a real and determining feature of our concrete experience, and so has resulted in complete elimination of the distinctive features of consciousness. Let us now pass on to the consideration of other realistic theories and see how far these can account for the emergence of consciousness.

I

S. ALEXANDER

Alexander regards Space-Time as the matrix of all being, as the basic stuff of all reality. He thinks Space-Time is simple and indefinable and it does not possess any other quality except the Spatio-temporal quality of Motion. Since it is ultimate it is not possible to define its nature, because there is nothing beside it to which it can be compared by way of contrast or agreement. Alexander differs from the American realists in so far as he does not admit the ultimate character of logico-mathematical entities. On analysis mathematical entities are discovered only as complexes of Space-Time. Mathematical entities may appear to be neutral, absolutely divorced from the empirical world of Space-Time, but in reality, the world of the Mathematician is not so and is found to be 'filled with the character of Space-Time'. Alexander further differs from the American realists in so far as he does not advocate pluralism. For him Space and Time are not two distinct entities, but they together constitute one indivisible stuff of all reality. 'Space-Time is an infinite given whole, and its elements are represented conceptually as point-instants, or bare events; other empirical things and existents are groupings of such events, whirlpools within that ocean, or they are crystals in that matrix. . . .

Only whereas a crystal may be separated from its matrix, existents never can.' 'They are complexes of motion differentiated within the one all-containing and all-encompassing system of motion.' (*Space, Time and Deity*, I, p. 183)

Now, among the characters of empirical existents there is a clear distinction between those which are variable and those which are pervasive. Some things are red, others green or yellow; some things possess life, others not; matter has mass, but is not conscious. These characters are called qualities and, because they vary from thing to thing, may be called empirical characters. But there are other characters which are pervasive and belong in some form to all existents whatsoever. Such are identity, substance, diversity, magnitude, even number. Not only are these characters of what we commonly call things, but they are characters of all existents whatever, that is to say, of everything, where the word thing is equivalent to any finite object of experience. The pervasive characters of existents are the categories of experience. 'The categories are the prerogative characters of things which run through all the rest as the warp on which the others are woven. Or, to vary the metaphor, they are the grey, or neutral-coloured canvas on which the bright colours of the universe are embroidered. Thus the categories are the groundwork of all empirical reality. Everything has being, and is a substance, every event has a cause, everything is related to something else, by way of quantity or causality or difference or otherwise. All things come into being endowed with the categories and with all of them. They are the determinations of all things which arise within Space-Time.' (*Ibid.* I, pp. 330-331) 'The categories are pervasive, because they are fundamental properties or determinations of Space-Time. 'Empirical things come into existence, because Space-Time of its own nature breaks up into finites, the lowest of such finites being simple motions of different velocities or intensities of motion and different existents of it. Time and Space, either of them creates differences in the other or breaks it up. But in a special sense Time is the author of finitude, for it is the transition intrinsic to time which in the first place makes motion possible, and secondly provides for the ceaseless rearrangements in space through which groupings of motions are possible. Time is the abiding principle of impermanence which is the real creator.' (*Ibid.* II, pp. 47-48)

The qualities arising out of the motion of Space-Time

stand to each other in a progressive temporal relation; they emerge in orders or levels and 'form a hierarchy, the quality of each level of existence being identical with a certain complexity or collocation of elements on the next lower level'. (ibid. II, p. 428) 'The emergence of a new quality from any level of existence means that at that level there comes into being a certain collocation of the motions belonging to that level, and possessing the quality appropriate to it, and this collocation possesses a new quality distinctive of the higher complex.' (ibid. II, p. 45) 'The higher quality emerges from the lower level of existence. Thus 'physical and chemical processes of a certain complexity have the quality of life. . . . Therefore life is at once a physico-chemical complex and is not merely physical and chemical'. (ibid. II, p. 48) And higher than the living thing with its quality of life is the mind, that collocation of motions endowed not only with physical and chemical qualities, but also with consciousness, the last and the highest of the empirical qualities known to us.'

The finite empirical existents are graded into different levels or orders, each level possessing its distinctive and appropriate quality. In such a hierarchy one level is distinguished from another by its degree of complexity. Each level of finite existent has its distinctive and specific mode of behaviour which is appropriate to that level, and which may be regarded as its new or emergent quality. The emergent quality belonging to a finite existent is a new complex and imparts to it its distinctive and special laws of behaviour. It should be clearly noted that Alexander does not understand by the notion of emergent quality any quality which is absolutely novel or

¹ L. ' In no mind is a new quality which belongs to physiological constellations of a certain kind, but these kinds processes are in turn part of a vital body which exists as it were of its own right, in the sense that there are vital processes which have not the quality of mind. A certain constellation of such vital processes has the quality of consciousness.' (ibid. II, p. 86)

2. 'Nothing than hold that Time is a form of mind we must say that mind is a form of Time. Out of the time-element . . . the quality mind as well as all lower empirical qualities emerge . . . ' (ibid. p. 44)

3. 'While Space-Time is continuous with matter, so is it equally continuous with mind. For mind as an existent, not simply as the quality of mentality or consciousness, is a living (and therefore a material) body with the mental quality.' (ibid. p. 66)

4. 'Mind is the last empirical quality of finites that we know, and we have seen it to be an emergent from the level of living existence.' (ibid. p. 67)

irreducible to the level from which it emerges. He states explicitly that the higher quality which emerges from the lower level of existence 'has its roots therein', and although it is something 'new' and 'does not belong to that lower level of existence', it is still 'expressible without residue in terms of the processes proper to the level from which it emerges'. It is, however, impossible to furnish any rational explanation for such emergence of qualitative novelties characterising the different levels of finite existents. Alexander confesses that no plausible explanation of how such a phenomenon happens to be can be given, and it has to be 'accepted with the natural piety of the investigator'. (*Ibid.* II, pp. 45-47)

In the above account of the theory of Alexander we are confronted with two conflicting aspects which it is hard to reconcile. Firstly, we have the assertion that a 'new quality' emerges, and that it constitutes its possessor a new order of existent, and secondly, that

'each new type of existence when it emerges is expressible completely or without residue in terms of the lower stage, and therefore indirectly in terms of all lower stages; mind in terms of living process, life in terms of physico-chemical process, sense-quality like colour in terms of matter with its movements, matter itself in terms of motion'. (*Ibid.* II, p. 67)

If an existent is completely expressible without residue in terms of a lower order of existence, how is it possible to maintain that there is anything new about it? Thus if secondary qualities are completely explicable in terms of matter and motion, there is no secondary quality but matter and motion; if life is completely reducible to physico-chemical process, then certainly it does not possess any novelty; and lastly, if mind is completely expressible in terms of life, how can it be in any way distinct from life? Alexander, of course, points out that the secondary quality is not merely vibration or the primary movement, that life is not merely physical and chemical, and that 'the complex collocation which has mind, though itself vital, is not merely vital but also mental'. But this assertion is meaningless if it is taken in connection with the other statement that any existent is completely reducible to a lower order of existence. What is not merely vibration cannot be completely reducible to what is vibration, and what is not merely vital cannot be expressible completely without residue in terms of life. If the quality is completely new, it can be expressed only in its own terms and not in terms of anything belonging to a lower

level of existence. If Alexander is to be consistent with his fundamental position, he cannot accept the doctrine of the emergence of genuinely new qualities. If the qualities are genuinely novel, they are not completely expressible in terms of entities of a lower order and ultimately in terms of Space-Time.

There appears further inconsistency in the doctrine of Alexander when he seeks to explain the relation of mind to its neural basis. Alexander refers more than once to the fact that mind as the highest empirical existent possesses the unique quality of consciousness. (*Ibid.* II, p. 87) He also adds that 'while mental process is also neural it is not merely neural', and that mental process is 'not merely physiological but also mental'. (*Ibid.* II, pp. 6-7) These passages show clearly that he is anxious to distinguish mind from its neural basis. But at the same time we have other statements which are clearly irreconcilable with this position. He asserts, for instance, that mental processes being 'in the same place and time with a neural process we are forced to go beyond the mere correlation of the mental with these neural processes and to identify them', and that 'there is but *one* process which, being a specific complexity, has the quality of consciousness'. (*Ibid.* II, p. 5) Again, he points out elsewhere that 'there are not two processes, one neural and the other mental, but *one*'. (*Ibid.* II, p. 9) If the neural and the mental processes are the same, it is quite reasonable to hold that such processes are expressible completely in physiological terms. (*Ibid.* II, p. 7) But it seems a plain contradiction to assert that consciousness is a unique quality and at the same time that it is completely reducible to physiological terms. If there is anything unique in mind which makes it not merely physiological, how is it expressible completely in physiological terms? How is it possible then to identify the mental process with the neural process? Mind cannot be neural and not neural at the same time. (M. W. Calkins, *Mind*, 1923)

Alexander is here beset with the same sort of difficulty which confronted Holt. The attempt to explain the higher in terms of the lower has proved disastrous in both cases. As we have already said, the reality revealed in any process is manifested more fully in the later stages than in the earlier ones. The later stages contain something more than what is in the earlier stages. So the final stages of any process are not explicable completely and without remainder in terms of the earlier ones. We have dealt with this point more fully in connection with Holt's deduction

of coextension and so it need not be repeated here. It may be remarked simply that if the view of mind as an emergent quality is to be accepted seriously, then all attempts to reduce mind to existents of a lower order should be abandoned. A quality which is emergent and genuinely novel does not admit of such reduction. In view of this fact we may place Alexander's theory of emergence on the same level as that of Holt (although Alexander differs from Holt fundamentally in other respects) and describe it also as Reductive Neutralism, because he too like Holt regards both mind and matter as reducible characteristics.

Some of the differences between the doctrine of Alexander and that of Holt have already been pointed out. A further point of difference between the two theories is that, while Holt attempts a strictly logical deduction of mind from a few neutral entities, ignoring completely the element of time, Alexander takes time to be the principle which brings forth empirical existents, including mind, into being. So he is not faced like Holt with the task of reconciling the universal and the non-temporal with the particular and the temporal.

II

BERTRAND RUSSELL

In his *Analysis of Mind* Bertrand Russell seeks to prove that the subject-matter of physics and psychology is the same. This means that ultimately mind and matter, which form the subject-matter of psychology and physics respectively, are made up of the same stuff. Such a view he recognizes to be similar to that held by Ernst Mach in Germany, and William James and the neo-realists like R. B. Holt and R. B. Perry in America. (*Analysis of Mind*, pp. 22-25) Russell is evidently in sympathy with the view of James in so far as he rejects the notion of consciousness as a substance and seeks to reduce both mind and matter to a primal stuff described by James as pure Experience. But he dissociates himself from the description of the primal stuff as pure Experience and in this he is supported by the American realists. In common with the latter group of thinkers he thinks that the term pure Experience 'points to a lingering sense of idealism', and that experience being a 'product' of the primary stuff of the world cannot be regarded as a constituent thereof. Russell prefers the term neutral stuff used by the American realists to describe the ultimate entities, of which both mind and matter are composed. The term

'neutral' is used in the sense that the ultimate entities, wherefrom both mind and matter are derived, are neither mental nor material but neutral as between them. But a fundamental point of difference arises between Russell and the American realists in their respective characterization of the nature of these neutral entities: whereas Russell regards them as sensations, the American realists think that they are certain logico-mathematical concepts. Other points of divergence have already been noticed.

Bertrand Russell maintains that the primal stuff of the world, of which both mind and matter are constructed, consists of sensations. The sensations 'are not solid persistent objects moving through space, nor are they fragments of "consciousness"', but are neutral in character. (*Ibid.*, p. 124) They are also described as particulars in order to distinguish them from substantial entities. They are called particulars not in the sense that they are theoretically analysable and are simples, but in the sense that our present state of knowledge does not permit us to go beyond them. The contention of Russell is that these particulars alone are real existents and mind and matter are only logical constructions. These particulars of sense are not substantial or solid entities like atoms, but are 'evanescent' and 'circumscribed in duration and spatial extent'. (*Myristicism and Logic*, p. 134) Mind and matter are only hypothetical constructions derived from the different groupings of the sense-particulars. There are two different ways in which these particulars may be classified; one form of classification would give us matter and the other form, mind. A physical object or matter may be regarded as 'the collection of all those correlated particulars which would normally be regarded as its appearances or effects in different places'. Again, the appearances of a number of different objects may be viewed from a given place; and such view of the world from a given place may be called a perspective. It is this perspective which yields the view-point of psychology or that of mind. (*Analysis of Mind*, p. 101)

Let us consider these classifications a little more closely. A piece of matter is not a single existing thing but a collection of different particulars which are regarded as the 'appearances' or 'aspects' of the thing in different places. When a 'table' is observed by different people situated in different places, their perceptions of the 'table' are different, though these may be simultaneous. These different appearances of the 'table' from different places are regarded as the 'aspects' of the same table by common

sense. But what the different observers perceive here is not the table, but only its appearances. The real table is never perceived, but is something which is inferred from its appearances. To settle, therefore, the question as to whether such-and-such a particular is an aspect of the table we cannot bring in the real table for reference, because the real table does not exist but is merely a construction. The only way to settle the question would be to compare the particular in question with other particulars which define the table. The perceptions of the table by different observers may be different, but they are also sufficiently alike to admit of description in the same words. It is this resemblance which the different perceptions exhibit that affords the clue to the definition of the table. The table, therefore, is the system of those particulars which is obtained by correlation of all the appearances actual and possible, perceived and unperceived, in different places to which they belong. A particular appearance of the table is regarded as the 'aspect' of the table because it is found to resemble other appearances of it observed by different participants situated at different places. The table is not a real existent; it is only a logical construction. The appearances of the table alone are real, and the table is only a collection of such actual and possible appearances in different places to which they belong. (See *Analysis of Mind*, Chapter V) Physics, for its own convenience, does not break up the unity of the thing into a multiplicity of appearances, but treats the whole system as a causal unit, a single thing.

Bertrand Russell's analysis of the conception of a material substance bears a family likeness to a similar analysis of that conception given by Hume. Hume maintained that a substance is merely the series or sum of the series of its appearances. 'The sensations or appearances have alone real existence, and the substance is only a fiction of the mind. That certain sensations appear to possess a unity is not due to the fact that they have an underlying substratum as the ground of their unity, but is simply due to our way of perceiving and thinking them as such. The unity, therefore, does not lie in the appearances themselves, but it lies in our mind. In the same way Russell also thinks that the appearances or sensations alone are real and the notion of substance is a 'logical construction', or a 'symbolic fiction'. The notion of a thing or substance is constructed by correlating the points of resemblance exhibited by the various appearances occurring at different places. The difficulty which such an explanation naturally

presents to us is, Why do certain appearances exhibit such similarity, if the ground for this resemblance is not contained in them? Do they form such groups only accidentally or is the reason for their appearance in such groups founded in their nature? By hypothesis they are a plurality of distinct and unrelated elements, having no connection or unity in themselves. If this be so, why should certain sensations appear always in a definite group so as to be regarded as one thing? That certain particulars present themselves always in our experience in definite groups is not simply an accident, but the ground for such presentation lies in the particulars themselves; otherwise their connection as members of a single group is inexplicable. The behaviour of the different sensations constituting a single group as one thing is not surely arbitrary. We do not regard certain specific sensations appearing in a definite group as one thing or as a system only because we think it convenient to do so, but because the sensations themselves function as one, for such functioning is not merely capricious, but expresses their essential nature. The unity exhibited by the various groups of sensations is as much real as the sensations themselves. The underlying unity of the sensations is a real feature of our experience, and is independent of the mind in precisely the same sense in which the particular sensations are independent. The various sensations could not behave as one thing unless the ground for such behaviour were already present in them. The notion of thinghood is, therefore, not merely a symbolic fiction but denotes what is real and constitutive of the facts of experience.

Again, considering the nature of mind, we do not discover any intrinsic quality in it. The sensations are the stuff out of which it is built up. But here the grouping of sensations is different from that which we have found in the case of matter. When the appearances of a number of different objects are viewed from a given place we obtain the psychological point of view or mind. The psychological point of view is different from that of physics in so far as it does not take into account the whole system of appearances of a given object as a single causal unit, but, on the contrary, it is specially interested in the particular appearances themselves. In psychology the unity of the physical thing is broken up into its appearances, and we are concerned only with the particular impressions which the objects produce upon the observer situated in a given place. Here we have the different physical objects which are situated in the 'active places'.

and the place where the percipient is and wherefrom the various appearances of the physical objects are viewed, is described as the 'passive place'. Thus the appearances of a number of objects from a given place and at a given time may be described as the subjective point of view. This subjectivity is a feature of mind, but cannot be regarded as its distinctive character. It belongs to any grouping of particulars from a given place and at a given time. In this sense it is exhibited by a photographic plate which also receives impressions of different appearances of a number of objects from a given place and at a given time. The only difference between a photographic plate and a percipient situated similarly consists in the fact that whereas in the former the sensations are passively impressed with no change or modification whatever, in the latter the sensations give rise to, and they are themselves affected by, mnemonic phenomena. Subjectivity and mnemonic phenomena together form the distinctive characteristic of mind. (See *Analysis of Mind*, pp. 129-132) These mnemonic phenomena consist of images and remembered and associated habits. Perception is not merely sensation, but sensation as modified by these mnemonic phenomena.

We have observed that subjectivity consists in the view of the world from a given place and at a particular point of time, and such view of the world has been further described as a *perspective*. In this sense a perspective comprises the particulars viewed from a given place at a particular moment of time by the percipient. But the perspective does not reveal all the features of mentality. In addition to perspectives we have also *biographies* which constitute the whole of the data of one percipient throughout his experience. A biography thus becomes a series of perspectives, and a perspective, we have seen, is but an aggregate of particulars. In the case of living beings it is not merely time-relations whereby the parts of a biography are collected together. 'In this case there are the mnemonic phenomena which constitute the unity of one "experience" and transform mere occurrences into "experiences" . . . a biography . . . into a life. 'It is they that give the continuity of a "person" or a "mind".' (Ibid., p. 129)¹

Sensations alone are not sufficient to constitute either perception or biography. The term perspective may be

¹ 'We might, in fact, define one *biography* of experience, or one *biography*, as a series of occurrences (aided by mnemonic causation.)' (*Analysis of Mind*, p. 130)

descriptive of the view of the world from a given place where instead of a percipient there may be a photographic plate. And since perception 'introduces an irrelevant psychological suggestion', it is better to think of perspectives in terms of the effects of various objects upon a photographic plate, and of perception as 'the appearance of the object from a place where there is brain, with sense organs and nerves forming part of the intervening medium'. Perceptions are further distinguished from appearances of objects in places where there is no living being by the fact that perceptions are causes and effects of mnemonic phenomena, that is, they may be remembered, associated, may influence habits and give rise to images, and are different because of our past experience. (*Ibid.*, p. 131) Biographies also cannot be constituted by sensations alone but require mnemonic phenomena.

Thus sensations alone do not constitute the stuff of mind; images also are necessary and these images again are governed by mnemonic laws and not by the laws of physics, such as gravitation. The sensations seem to possess an amphibious character and may be constituents both of mind and the physical reality, but images are peculiarly mental and cannot form a part of the physical world. Russell, of course, maintains that the images being copies of sensations, do not differ from the latter as regards the stuff of which they are composed; the difference lies only in their causes and effects. The duality between sensations and images is, therefore, not of stuff, but of causal laws. Images are entirely private and are guided solely by psychical laws. But their privacy does not constitute any bar to their scientific treatment. Sensations, again, are not always neutral. The sensations of sight and hearing are more or less public, while those of other senses are only semi-public. The organic sensations are entirely private. The real 'publicity in sensations consists not in having precisely similar sensations, but in having more or less similar sensations correlated according to ascertainable laws'. The whole distinction of privacy and publicity in the case of sensations 'is one of degree and not of kind'. (*Ibid.*, pp. 118-119)

It appears that if sensations are not entirely public, they are to be recognized as different. In the cases of sight and hearing, the most public of all senses, the same object cannot produce the same sort of sensations in different percipients since they do not all occupy the same position. The difference may be ignored for scientific purposes as of little value, but for metaphysics they were

to be all-important, and have to be considered as real. If the sensations of the different percipients are shorn of their differences and reduced to a dead level of uniformity, such procedure surely cannot be regarded as real explanation. In any true explanation the differences are to be considered no less than the uniformities if there are any. If the sensations are, on Russell's own admission, not entirely public, it seems difficult to understand how they can be neutral. The sensations further are 'evanescent', 'momentary' and betray such qualities as 'pleasure' and 'discomfort'. (*Ibid.*, p. 71) If these be regarded as the characteristic features of sensations, neutrality is difficult to maintain; and the ultimate constituent of reality in Russell's view appears to be more like the element of empirical psychology than like that of the physical sciences.²

The affinity of Russell's doctrine with that of Hume is further evinced in his reduction of the concrete reality to an aggregate of atomistic sensations. In adopting this phenomenalist interpretation of reality (which is the logical consequence of the pursuance of analytic method), Russell banishes all permanence and unity, and leaves, in the place of concrete reality, an aggregate of abstract particulars. Here again we find the same havoc wrought by the analytic method as we found in the case of Holt's reduction of concrete reality to logico-mathematical concepts. Analysis dissects each object into an infinite number of supposedly mutually exclusive, self-existent entities, i.e. atomic reals and external relations. All unity is shattered and discontinuities take the place of continuity of development. The concrete reality of mind is dissolved into a series of particulars bound together by mnemonic laws. In breaking up the unity of mind into a series of particulars Russell seeks to restore the original unity by artificial aggregation. Mind is regarded as a class of particulars; it is not real, but only a logical construction. In defining classes by reference to common properties abstracted from differences, and in substituting the fictions or symbols thus constructed for the original entities, Russell's method abstracts still further from the vitality and uniqueness of the differentiations of concrete reality.

² Russell's recent views have been compared by realists to Berkeley's idealism and Hume's phenomenalism and the similarity in some important respects to Hume has been remarked by Russell himself. (*J. Prot. Acad. Soc.*, XV, pp. 289 ff.; C. D. Broad, *Vind.*, New Series, XXIV, pp. 46 ff. & *Analysis of Mind*, pp. 146-9, 155, 156, 230-4)

It may be pointed out that Alexander rejects this atomistic interpretation of reality and mind. 'Mental states', he maintains, 'are not grouped into wholes by association but are distinguishable processes within a mental continuum.' (*Sense, Time and Deity*, II, p. 13) He regards the associationist psychology as 'crude' and 'obsolescent'. He holds that 'the fact of mental unity is beyond dispute', and however 'disconnected our experiences may be they are not experienced as merely juxtaposed to make a unity, but as differentiations of that unity', (*Ibid.*, II, p. 24) These remarks, which are made by Alexander in connection with the associationist school of psychology, apply also to Russell's conception of mind, because Russell, like the associationists, seeks to interpret mind as a construction out of particulars of sense, connected together by the law of association, or what he calls the mnemonic laws. Bernard Bosanquet also insists that such construction of mind out of particulars is impossible. He observes that we 'cannot reasonably take the mind, reduced to trains of particulars, and extract from this bare skeleton of it a theory of its nature functions'. (*Three Chapters on the Nature of Mind*, p. 110) The inherent defect of logical atomism is that it dissects a genuine whole into ultimate simples and then seeks to combine them mechanically into a complex aggregate; but a genuine whole once shattered apparently cannot be regained. It is surely unintelligible how such atomic entities (sense-particulars) become related in the determinate way necessary to yield a significant whole such as mind or its various constituents. On the assumption that sensations as the ultimate stuff of the universe are such atomic and independent particulars, the fact of their combination into significant wholes such as mind is incapable of being regarded in any other way except as an arbitrary and a miraculous coincidence, for which no reason can be offered and which has to be taken only on trust. The sense-particulars combined by mnemonic laws can give us only aggregates and not a genuine whole. So long as the particulars are not regarded as interconnected members of a systematic significant whole, no passage from the parts to the whole is possible. The method pursued by Russell dissolves the unity of reality and with it the unity of mind.

C. D. Broad also recognises the futility of constructing mind out of the relations of particulars. He stresses the conception of mind as an emergent quality, and urges that it is not possible to derive mind so long as it is insisted that the relations and the particulars which enter into such

relations, are independent of each other. In such a case we may have a mechanical complex, but not an emergent quality, if by the latter is to be meant a quality which is incapable of being discovered by the analysis of parts, and which is, therefore, irreducible. Broad contends that if there are 'characteristically "mental" forms of structure', these 'cannot be analyzed in terms of relations which hold between sense that are not constituents of mind'. If then Russell is to maintain that there are characteristically mental forms of structure, he cannot analyze them completely in terms of sensations. In analyzing perception Russell points out that it is composed of sensation which is an external fact and certain mnemonic phenomena. In perception the mnemonic phenomena simply 'accompany' the sensations or are simply 'added' to them. Broad insists that the word 'accompaniment' here is meaningless. He maintains that

'the essential point is, that in the perceptual situation these various factors do not merely co-exist, but are related in a perfectly unique way to form that perfectly unique kind of whole which we call a perception of so-and-so'. (*The Mind and Its Place in Nature*, p. 381.)

The relation of the various mnemonic phenomena to the sensations is not merely an 'additive' one, because such relation would not yield 'the unique kind of whole' as the bearer of the 'differentiating attribute' of mentality. In a perceptual situation, on the contrary,

'these various factors which are due to mnemonic association are fused with each other and with the objective constituent (sensation) in a perfectly unique and characteristic way to which there is no analogy outside the mind'.

Broad insists that the attempt to reduce mind and matter to a common stuff is not compatible with the recognition of their essential structural differences. The two procedures are palpably incongruous. It is not possible, on the one hand, to maintain that mind and matter are capable of being resolved into more primitive entities, and to assert, on the other, that their distinction is essential. So he observes:

'The more one insists on the community of stuff between mind and its objects, the more one will have to insist on the radical differences of structure between the two, and on the emergence of new qualities in those structures which are peculiar to mind as contrasted with matter.' (*Ibid.*, p. 384.)

It would further appear that if Russell maintains that mind is nothing more than the particulars connected by mnemonic laws in a certain aggregate, then the difference

between his theory and that of the associationists is reduced almost to a vanishing point. The associationist also maintains that the mind is an aggregate of sensations held together by the law of association. And he argues that mind is determined through and through by causal laws, habit, and past experience. There is no freedom or spontaneity characterizing our mental activity. Russell is committed to a similar position by his theory that mind is an aggregate of sense-particulars, determined by causal laws, such as those of association, habit, and past experience.

III

C. D. BROAD

In his recent book on *The Mind and Its Place in Nature* C. D. Broad, after discussing several forms of emergence theory, concludes that the only satisfactory theory of emergence is what he calls Emergent Materialism. It is our purpose to discuss the theory of emergent materialism as formulated by Broad only in so far as its explanation of mind is concerned. Our task is simply to consider what place is assigned to mind in such a theory, and how its characteristic features are sought to be explained by it.

An emergent quality is defined by Broad as a simple quality which belongs to the whole and not to its parts, and which further is irreducible to more ultimate terms. (Cf. *The Mind and Its Place in Nature*, pp. 22-23) According to the doctrine of Emergent Materialism, mind is an emergent quality in the sense that although it is not possible to analyze it into more primitive entities, yet it is material in structure. Broad thinks that it is quite possible to maintain that mind is material, and yet to hold that the science of psychology is independent of physics. Mind is, indeed, essentially material in structure, but it possesses properties which cannot, even theoretically, be inferred from its material constituents. The qualities belong to the structure as a whole and not to its parts. In this sense they are emergent. In the present state of our knowledge it is not possible to infer from the properties and relations of the parts, the properties possessed by the structure as a whole. According to Broad, mind is an emergent quality exactly in the same sense in which a chemical compound is regarded as an emergent. He seeks to explain mind on the analogy of chemical compounds.

Mind is 'a compound of two substances'; one of these constituents is the 'psychic factor' and the other is the 'bodily factor'; 'neither of which by itself has the characteristic properties of mind'. Water has many properties which we cannot infer from those of oxygen and hydrogen, even if we suppose ourselves to know the structure of the molecule of water more completely than we do as yet. Liquids and crystals as compounds exhibit emergent properties which cannot be completely resolved into the relations and parts of which they are composed. In the same sense, mind is a 'compound of two factors neither of which separately is a mind'. The 'psychic factor' which enters into the composition of mind is like some chemical element which has never been isolated. The characteristics of the whole mind, however, 'would depend jointly on those of the "psychic factor" and on those of the material organism with which it is united'. The mental quality belongs to the compound as a whole and not to the several elements which compose it. Reflection upon the nature of our minds discloses the fact that such processes as perception, reasoning, anger, love, etc., cannot be ascribed to a mere body, nor is it possible to ascribe them to what is left when the bodily factor is ignored. Thus mind is a compound of two factors neither of which separately is mind. And the specifically mental characteristic belongs to the compound substance. (Cf. *Ibid.*, pp. 535-536)

Broad is anxious to distinguish his theory from the ordinary form of materialism. He recognizes that mind as a higher form of emergent cannot be reduced to the lower forms of emergents. Although a material structure, mind cannot be identified with the lower forms of matter with which physical sciences are concerned, because as a new compound it reveals certain emergent properties which make it a unique kind of whole. The defect of traditional materialism consisted in the fact that it sought to explain the higher forms of existents in terms of the lower,—mind in terms of the lower forms of matter. If mind be regarded merely as a complex of matter and motion, and if mechanical conception is brought to bear upon the interpretation of mental phenomena, then psychology loses its independent status as the science of mind and becomes only a subordinate branch of the science of physics. But Broad thinks that the recognition of mentality as an emergent quality serves at once to obviate this difficulty and to distinguish his theory from the older form of materialism which reduces the different orders of existents

to the dead level of uniformity, obliterating their characteristic differences.

It would appear, however, that the difference between the views of Broad and those of the materialists is only on the surface. If we look deeper, we shall probably find that his theory is substantially the same as materialism and the qualifying adjective 'emergent' does not possess any saving magic. There is a positive danger in pressing the analogy of chemical compounds too far. A chemical compound is evidently made up of elements which are essentially material in character. The several elements as constituents of the compound do not perform the same function as they would as independent entities. Here the elements are fused in a unique and characteristic way so as to create a whole with new properties and new functions. Is it possible to regard mind in the same way as a compound endowed with emergent properties? In the case of chemical compounds both the compound as a whole and its several constituent elements are essentially material in character, although the whole and the constituent parts, taken by themselves as independent entities, differ in their respective qualities and functions. Can it be said also of mind that it is essentially material in character, differing from the lower forms of emergence in respect of its functions and attributes precisely in the same sense in which liquids differ from gases? The answer of Broad is in the affirmative. He thinks that since materiality is the 'differentiating attribute', mind is only an emergent quality from the lower forms of matter, and that although it is irreducible to the lower forms of emergents, it is none the less material.

But if the analogy between mind and chemical compounds is pushed to its logical consequences, it seems difficult to maintain that psychology is a science independent of physics. If the different types of emergents, such as liquids and crystals, are capable of being governed by chemical laws, why should not mind also be similarly governed? Crystals as an emergent exhibit properties and functions different in kind from those evolved by liquids. But the exhibition of different types of emergent properties does not, in their case, necessitate that we should have different sciences for their study. Why should then mind alone be treated in an independent science like psychology? If emergence of new properties in the case of chemical compounds does not require the creation of new sciences for their treatment, the emergence of new properties in the case of mind should not also need a separate

science for the investigation of these new features. If the analogy is pressed, the distinction between psychology and the chemical sciences seems to vanish altogether.

It is true that Broad recognizes the irreducible character of mind. But this admission does not mean much so long as he insists that mind is material in structure. If mind be of the same kind as the various chemical compounds, then the mere fact that it is unanalysable into lower forms of emergent entities can hardly bestow upon it any characteristic novelty. If we are anxious to explain the novelty of mind, we should regard it not only as irreducible, but as essentially distinct from the lower emergents from which it arises. No genuine novelty attaches to the conception of mind so long as it is regarded as material in character. As a compound of certain material constituents, mind is put exactly on the same level as the other compounds of matter.

Yet one cannot but recognize the characteristic differences between chemical compounds and mind. We are hardly justified in describing mind as material when we look closely into its characteristic features. Such characteristic mental processes as perceiving, thinking, desiring, believing, etc., can hardly be regarded as the work of matter, however refined it may be. We are unable to conceive how mere matter, however subtle, can ever perform these mental functions, which are radically distinct from the behaviour of an ordinary piece of matter. If matter does not undergo a radical transformation and if its character is not essentially altered, it seems impossible to account for the essential features of mind. Mind may be an emergent from matter, but that does not imply that it must, therefore, be necessarily material. There is no use in insisting that materiality is not superceded even when the mind appears on the scene. The difference between mind and matter is not merely one of degree; it is one of kind. If mind is regarded as material, there is no meaning in recognising it as an emergent quality. As we have already said it is impossible to ascribe any genuine novelty to mind if it is regarded as merely material. And, again, the characteristic features of mind cannot be explained unless we abandon the notion of mind as material.

Broad, no doubt, maintains that a 'psychic factor' enters into the composition of any mental compound. But this psychical material is not genuine. It is only matter, though an 'unusual kind of matter'. Broad seems to be very uncertain as regards the nature of this 'psychic factor'. He seems to think that it is of the same kind

as the material known as 'ectoplasm' which is found in the bodies of mediums. Although he is not definite about the character of this 'psychic factor', yet he would not regard it as mental. In order to establish the materiality of mind he seeks to derive support from *Psychical Research* which, however, has not yet found its place among the exact sciences. Thus the view of Broad is based upon a very insecure foundation. He is hardly justified in asserting that mind is material when evidence in favour of the view is so meagre.

Further, it seems meaningless to describe one constituent factor of the mental compound as the 'psychic factor'. If there is nothing 'psychic' or 'mental' about it, and if it is purely material, nothing is gained by inventing a mere name. There is no charm or magic in a name that we should think that its touch alone is enough to alter the character of a substance. The 'psychic factor' of Broad is, therefore, essentially material, and his whole conception of mind is only materialism in thin disguise.

If both chemical compounds and mind are regarded as equally material, then it seems impossible to maintain that there is any intrinsic difference between them, and their difference becomes only a matter of degree, and the contention that mind is an emergent property and irreducible to the lower forms of material emergents ceases to have any meaning. Mind cannot be regarded as emergent and qualitatively novel, and at the same time as material. If mind exhibits certain features which are incapable of being reduced to the lower forms of emergents, then those features are not surely material, but mental. If mind be not regarded as such, psychology becomes a subordinate branch of physics and chemistry and once more the levelling down is complete.

CHAPTER III

Neo-Realism and the Nature of Consciousness

AMERICAN REALISM

In the previous chapters we have considered the various attempts of the neo-realists to deduce consciousness from simpler forms of being. Our discussions must have revealed that none of them is really satisfactory. Neither the theory of neutral entities advocated by Bertrand Russell and the American realists nor the hypothesis of Space-Time defended so brilliantly by Prof. Alexander is capable of offering a satisfactory account of the genesis of consciousness. The new realists, generally, in their anxiety to demonstrate the substantial unity of the different orders of empirical existents, have lost sight of the intrinsic distinctions appropriate to the different levels of reality.

Among the realists no one is more insistent than Prof. Alexander upon stressing the emergent novelty of consciousness; yet even he thinks that consciousness is completely explicable in terms of the primordial Space-Time stuff and is capable of being completely reduced thereto. If consciousness is without residue reducible to earlier forms of being, wherein then lies its distinctiveness, and where is the novelty which it is said to exhibit? If consciousness is a genuine whole, it must transcend in some way its constituent parts, and can hardly admit of any adequate explanation in terms thereof. Throughout our criticism of the neo-realistic theory of the emergence of consciousness we have noted this inadequate recognition of the qualitative distinction of consciousness in relation to lower levels of reality. From the central position in the scheme of reality to which the idealists arrogated it, consciousness is relegated to a place of equality with other objects of nature. It becomes only one among other empirical existents.

The American realists also cannot satisfactorily account for the qualitative distinctness of consciousness by their hypothesis of neutral entities. The logical deduction of consciousness from a few logico-mathematical neutral universal concepts proves itself utterly barren when con-

frouted with the uniqueness of conscious quality. The specific response or behaviour does not convey an adequate description of conscious response, when the specific response is said to be completely explicable in terms of simple reflex actions, and the whole analysable in terms of them. (Cf. E. B. Holt, *The Freudian Wish*, II, Response and Cognition.)

It is our purpose in the present chapter to discuss the views of the American realists concerning the nature of consciousness. We have so far considered their attempts to deduce consciousness from some primordial stuff, and have tried to determine the place which they have assigned to it in their ontological scheme. Here we shall be primarily concerned with the account which they have given of the specific nature of consciousness, the way in which they have sought to define its character, and the precise account they have offered in regard to the various modes of consciousness, cognitive, emotional, and volitional. The American realists in their account of consciousness have mainly confined themselves to its cognitive aspect, and its other aspects, namely, emotional and volitional, have received more or less perfunctory attention. We shall consider here the theories of three of the prominent American realists, namely, Holt, Perry, and Merrell. The theories of consciousness formulated by these thinkers agree in fundamentals although differing in some minor and unimportant details.

I

E. B. Holt

Holt's theory may be taken as an illustration of the extreme type of realism. It expresses a radicalism in thought, typically American, to which a parallel is furnished by the psychological theory of behaviourism formulated by J. B. Watson, a compatriot of Holt. Consciousness is defined by Holt as the 'cross-section' of the universe defined by the 'specific response' or 'behaviour' of the nervous organism. (Cf. *The Concept of Consciousness*, p. 132) To make the definition intelligible it seems necessary to explain what Holt really means by the two terms 'cross-section' and 'specific response' or 'behaviour' which occur therein. We have already found that 'behaviour' or 'specific response' is an emergent quality belonging to the nervous organism at a certain stage of its evolution. An organism endowed with this quality performs a certain function in relation to its environment which is absent in the organisms of a lower

level in the evolutionary process. Mere reflex action which characterises lower organisms, and which is largely conditioned by the immediate stimuli, cannot be identified with 'behaviour' or 'specific response' which in a large measure functions independently of immediate stimuli, and bears as its essential mark a genuine objective reference. But this 'behaviour' or 'specific response' alone is not consciousness; it is only one term of the whole which constitutes the conscious situation. 'Specific response' is essential for consciousness, but it does not, in itself, constitute consciousness. The qualifying term 'specific' indicates the distinctive character of such response and serves at once to distinguish it from the simpler types of response exhibited by lower orders of existence, such as plants. Consciousness is possible where the organism is endowed with this quality of specific response or behaviour.

The behaviour, or specific response, as a novel function of certain organisms, is always directed towards the physical environment. By virtue of the selective character of the behaviour, or specific response, the organism responds to certain aspects or features of the physical environment, and thus constitutes a 'cross-section' out of the total environmental whole. A 'cross-section' is defined by Hott as 'any part collection that is defined by a law which is unrelated (or but remotely related) to the laws that define the whole in question'. (*Ibid.*, p. 170) In this sense a part collection or 'cross-section' is in no way 'organically related to the whole'. The law which governs the part is different from the laws which govern the whole. The part collection may be the result of any selection that we make from a given whole and as such it may constitute a new relational complex defined by laws which may not apply to the whole wherefrom it is abstracted. These part collections or cross-sections may be defined in an infinite number of ways. Thus,

'the attractive faces in a railway coach, the students at a university whose given names begin with W, the pericodes of matter lying in the plane of the earth's orbit,—all these are larger or smaller collections that are true parts of various manifolds.'

But these collections cannot be designated as minds. It is only when we have a collection of objects or a 'cross-section' of the universe defined by the 'specific response' or behaviour of the organism that there is consciousness or mind. This is due to the fact that behaviour is 'a striking novelty which does not . . . occur anywhere in

the evolutionary series prior to the appearance of organized response'. (*The Freudian Wish*, p. 167) Hence Holt maintains that the 'criterion of consciousness is specific response' and 'Psychology is the science of "psychic cross-section"'. (*The Concept of Consciousness*, pp. 203-208)

Consciousness, therefore, according to Holt, is not merely identical with the behaviour or 'specific response' of the organism, nor is it to be equated with any 'cross-section' or 'part collection' selected from the universe, but it is the 'cross-section' or collection of objects defined by the specific response of the organism. Holt tries to explain the nature of consciousness by the analogy of a searchlight. Consciousness is

'like a searchlight which, by playing over a landscape and illuminating now this object now that . . . defines a new collection of objects all of which are integral parts of the landscape (and remain so), although they have now gained membership in another manifold—the class of all objects on which the illumination falls'. (*The New Realism*, p. 262. Also *The Concept of Consciousness*, pp. 168-172)

The cross-section as a manifold is in space and time and includes colour qualities as well. It is not inside the searchlight, nor are the objects that make up the cross-section in any way dependent upon the searchlight for their substance or being. (*The Concept of Consciousness*, p. 177) Consciousness, therefore, is neither within the 'skull' nor within the nervous system, but is a class or collection of objects 'defined by the specific response of the organism equipped with a central nervous system'. 'The mariner's searchlight is the nervous system and the totality of objects that are illuminated is the cross-section or consciousness'. (*ibid.*, p. 203)

The 'entire cross-section' or collection of objects defined by the specific response of the nervous system is assumed to 'constitute mind' or the 'psychic realm', and the 'individual members of this cross-section' are, taken severally, the various contents of consciousness, such as sensations, perceptions, ideas, etc. (Cf. *ibid.*, pp. 182-183) The different items of conscious cross-section 'coincide exactly with the list of objects of which we say that we are conscious'. 'I know not,' he says, 'what distinction can be drawn between the object of consciousness and the object of behaviour.' (*The Freudian Wish*, p. 173) Thus while consciousness is the entire cross-section defined by the behaviour or specific response of the organism, the individual components of such cross-section are the several conscious contents.

This definition of consciousness involves certain important implications. Firstly, consciousness is not identical with the behaviour or specific response (the searchlight in the analogy) of the organism. It is not an act of the physical organism, although such action (specific response) is essential to it. Secondly, consciousness is conceived of as a class or collection of objects defined by the specific response or behaviour of the organism in relation to the physical environment. It is, therefore, only a peculiar grouping of certain objects arranged in a particular and definite context. The collection of objects or 'cross-sections' may be obtained in an infinite number of ways, but the cross-section which constitutes consciousness is to be distinguished from other 'cross-sections'; because the former is defined in a characteristic way by the 'specific response' or behaviour. Consciousness is, therefore, nothing but an aggregate or a collection of objects defined in a characteristic manner. Holt maintains that the aim of the American realists has been 'to abolish the subjective . . . and to interpret mental phenomena in an objective relational manner'. (*The Freudian Wish*, p. 206) Thirdly, the conscious cross-section is not in any way dependent for its being upon the 'specific response' or behaviour which defines it. The objects constituting the conscious cross-section become members of a new grouping, being defined in a specific way by the behaviour of the organism. But the behaviour of the organism serves only to define a specific collection of objects; it only brings the objects into a definite context. Beyond this it neither determines the existence of these objects nor does it modify or alter their original characters. Fourthly, the objects constituting the conscious manifold may yet be members of other manifolds, and are really 'integral parts' of the larger physical environment from which the collection is made. The conscious manifold does not contain objects which are substantially distinct from the objects included in other manifolds. The substance or the being of the objects constituting a conscious cross-section does not undergo any modification for the membership of the latter in a new manifold. The objects of the conscious cross-section do not, by virtue of their membership in a new manifold, cease to be parts of the larger environment from which the collection is made; they remain still 'integral parts' of the wider physical environment. Fifthly, whereas consciousness or mind is the cross-section as a whole defined by the specific response of the nervous system, its indivi-

dual members or its several constituent objects form the various conscious contents, such as sensations, perceptions, ideas, etc. Consciousness is the totality or the whole, whereas the contents are its several component parts.

Having now explained Holt's definition of the concept of consciousness, and having, in a general way, distinguished consciousness as a whole from its several constituent contents, let us proceed to consider in detail the specific character of the several contents of consciousness as defined by Holt. The examination of the nature of conscious contents is likely to be of great importance in that it would reveal one of the essential features of the neo-realist's conception of consciousness and would serve at once to mark it off from the traditional view. The neo-realistic theory of consciousness is primarily an attack upon the older theory known as representationalism according to which the objects of consciousness are existentially distinct from its contents. The contents are mental, immediately given to consciousness, and serve as the connecting link between the mind and the independent object. They are, so to say, pictures, copies or representations of the object, and in this sense may be said to correspond to the object, but are never identical with it. So the object and the content are existentially distinct entities; and while the latter is mental and immediately given to mind, the former is non-mental and is apprehended only inferentially or mediately through the immediately given mental content. Consciousness, therefore, according to this theory, is not an immediate apprehension of the real object, but grasps the real through the medium of the content.

The neo-realists were not apparently satisfied with this representationalist theory of consciousness. The most important consideration which prevailed with them in their rejection of the representationalist theory was perhaps its failure to account satisfactorily for the knowledge of the real object. By hypothesis, the real object is not immediately accessible to mind; the mental content alone is so accessible. Then a correspondence is asserted to be possible between the content and the real object. But how do we know that this correspondence is real if we are debarred from access to the object? Under such circumstances ascription of any predicate to the real object may prove in the end to be arbitrary, since we have no available means of verification. Correspondence, true or false, can be determined only in cases where the terms, between

which such correspondence obtains, are accessible. In the present case only one term, the copy, is given, but the other term, the original, is not given. How are we to compare the two and know for certain that what belongs to the one also belongs to the other? Any predicate we ascribe to the real object may or may not belong to it. Our inferences concerning its nature are, therefore, liable to be precarious. Any knowledge of the real object thus becomes impossible. These considerations probably led the neo-realists to reject the representationalist theory of consciousness. However the neo-realists may differ among themselves, they meet on common ground in their disapproval of representationalism. The emphasis upon the direct and immediate character of our apprehension of reality is one of the cardinal creeds of neo-realism. All modes of conscious apprehension, be they sensations, perceptions, imaginations, thoughts, etc., are essentially presentative in character, and bring us into direct and immediate contact with the real object.

Let us now turn to Holt. He characterizes the representative theory of perception as a 'doctrinal monstrosity', and regards the existential distinction between the content and the object as illegitimate. (Cf. *The Concept of Consciousness*, p. 218) Sensation and perception are not mental contents or psychical existents corresponding to non-mental objects; they 'do not involve correspondence at all, true or untrue', but are one with their 'objects'. In truth, 'there are not sensations or perceptions and their objects', but 'there are objects, and when these are included in the manifold called consciousness they are called sensations and perceptions'. 'Sensations and perceptions,' Holt asserts, 'are objects in the hierarchy of being, and they are in the psychic cross-section when the nervous system specifically responds to them.' Holt thus most unequivocally repudiates the suggestion of the existential distinction of the content and the object, and maintains that they are numerically identical entities. But in what sense is this identity to be conceived? Is the identity to be pressed in such a way as to mean complete coalescence of the content and the object? Holt's answer is that sensations and perceptions as contents are not existentially distinct or separate from their objects; numerically the content and the object are one and the same; yet there is a sense in which the two entities are distinguishable. In a certain sense, of course, the object may be regarded as something more than the sensation or perception. If we regard the object as 'more than the sensation or percep-

tion, it is because the nervous system is responding to some components only of the object; but such components are at one and the same time, and without any sort of reduplication, a part of the object and a part of the consciousness.' (*Ibid.*, p. 222) Sensations and perceptions as contents are integral parts of the objects, though they are only portions or fragments selected from the objects by the specific response of the nervous system.

If sensation and perception as contents are only aspects or portions of the object, then they have independent reality in the same sense in which the object is real. As aspects or features of the object, the sensation or perception exists in its own right as an independent real entity, and it becomes a content of consciousness when it is specifically responded to by the nervous system. For their reality as contents, sensation and perception in a sense 'strictly depend on the physical organism . . . or the nervous system'. (*The Concept of Consciousness*, p. 208) But they are real and 'are something in themselves also aside from that which conditions them'. It is true that the conscious cross-section is defined by specific response of the nervous system, and thus several entities which belong to it constitute a new relational manifold, and by virtue of such relation assume the status of conscious contents. But the several components of the psychic cross-section have also being as independent entities out of this specific relation. In whatsoever context these entities may be, they 'still retain their distinct self-identity'. Neither the elements nor their combinations are made by the mind, for they are strictly independent entities to which knowing makes no difference. Since whatever one responds to is independently there, whether thing or merely sensation or perception, the traditional distinction between subjective and objective expresses only confusion. 'Everything that is, is and is just as it is.' (*The New Realism*, p. 352. Also *The Concept of Consciousness*, pp. 104-105) Experience does not make any difference to facts, be they logical concepts, sensations, perceptions, ideas, feelings, or emotions. The organism only responds specifically to the entities belonging to the 'neutral universe', but such response does not change or modify those entities in any manner.

When Holt speaks of the independent being of a sensation or of a perception, what does he exactly mean by such independent being? We have already seen that for him neither materiality nor mentality is the character which belongs to reality. Reality is neutral in the sense that it

is neither material nor mental, but is essentially conceptual in character being of the same nature as certain logico-mathematical entities. The entities, therefore, which compose the universe are in reality essentially neutral in character. When they are specifically responded to by the nervous system a cross-section is defined which is consciousness. The entities which are within the conscious cross-section, although they are now members in a new manifold, are yet integral parts of the universe which is neutral. Thus the several components of the conscious manifold, such as sensation and perception, do not forfeit their original neutral character, although they have gained membership in a new manifold. Sensations and perceptions are regarded as contents of consciousness when they are within the psychic cross-section, but even then their original neutral character is not in any way altered. So that sensation and perception have independent neutral being when they are not members of the conscious cross-section. The view which is sought to be expounded here is only the necessary outcome of the attempt at a universal application of the theory of external relation. Relations are all external to the terms which they relate; and consciousness, which is only a name of a certain type of relation, in which certain objects are grouped in a specific way, is also after all a kind of external relation. As such, certain objects grouped together by the relation of consciousness do not lose their primitive character, that is, the character which they possessed before they were related in this specific manner.

As members of the cross-section called consciousness, sensation and perception are only portions or aspects of certain objects. The character of objectivity belongs not only to sensations and perceptions, but it pertains also to such entities as images which are ordinarily thought of as characteristically mental. In strict accordance with his theory that the contents of consciousness are objects to the conscious cross-section defined by behaviour or 'specific response', Holt regards images as essentially 'neutral' and objective in character. Images also are in the conscious cross-section exactly in the same sense in which sensations and perceptions belong to the psychic manifold. As in the case of sensations or of perceptions, so also in the case of the ideas of memory and imagination, there is numerical identity of the content and the object, and thus the idea of the object is identical with the object, and the two are not existentially separate. The theory of the identity of content and object creates less

difficulty in the case of sensation, or of perception, than it does in the case of ideas of memory and imagination. When, for example, we think of a distant object, our idea of the object is said to be *here* in our mind, whereas the object is out *there* in a distant region; or we may think of a past event, and in such case our idea of it is a *present* occurrence, while the past event happened long ago and is now past. If the 'idea' of the 'object' is regarded as identical with the 'object', are we to assume that the 'idea' of the distant object is in the distant space of the object, or the 'idea' of the past event is in the past time?

The theory of the identity of content and object involves the above difficulty. Holt tries to avoid it in an ingenious manner. He maintains that it may be possible to distinguish between two systems: one, the system of knowledge, having as its members, ideas, images, etc., with their own space and time; and the other, the system of physical events and objects, existing in a different space and time called 'real' or 'physical'. No event or object has an absolute position, a position internal to itself. It has position only in relation to another event or object outside it. Thus the different contents of the knowledge system have position only as members of that system and in relation to the entities that are outside it. In the same fashion, the entities belonging to a physical system have position only in relation to the other entities outside it. Thus the position of a distant town consists in its relation to the rest of space; and the position of my idea of that particular town consists in its relation to the rest of my knowledge. Now my idea of the town, according to Holt, 'is not here where the knower is', nor is it 'there where the actual town is'. Such 'idea is clearly in neither position'. We cannot think that any idea is 'secreted in cerebral lobes'; nor can we think that the idea is 'there where the actual town is', for the simple reason that my idea of the town, as a 'portion of the actual town', . . . is in my conscious cross-section, and as such is a member of such conscious manifold. (*The Concept of Consciousness*, p. 233) As we have already observed, the conscious cross-section is defined by the specific response of the nervous system to certain features of the objective environment, and, as such, the contents which are within such manifold may be integral parts of other manifolds. An entity, simply because it enters into one set of relations, is not thereby precluded from entering into other sets of relations. My idea, therefore, as a content of the conscious manifold may also at the same time be a member

of the physical manifold. My idea does not exclusively belong to any of these manifolds, but it may be regarded as having two positions, one in the spatial manifold, and the other in the knowledge manifold. There is no contradiction in the view that a particular object may become simultaneously a member of two manifolds and may have consequently two positions. In geometry, a point situated at the intersection of two lines has a position in each figure. My idea of the town, in the same way, is the point of intersection between my knowledge system, on the one hand, and the spatial system (the actual town existing in the distant space) on the other; and, by virtue of this neutrality, it has two positions, one in my knowledge system, and the other in the spatial system. My idea, in so far as it is a cross-section of the town, is clearly a member of the spatial system, and has a position therein, and thus far 'represents' the real or physical space in which the town exists. But this 'representation', according to Holt, does not mean that the idea of the town is, in any sense, a picture or copy of the town, or that the 'idea' is wholly identical with the actual town. It implies only 'partial identity', that is to say, it is only some portions or fragmentary aspects of the actual town which constitute the idea or the psychic content. In the same way, it is shown that the idea of a past event also is neutral in so far as it is situated at the intersection of the two manifolds; one of these is the knowledge manifold, in which the various events are ordered in the temporal relation of before and after, and the other is the manifold of objective events in which also the real events are arranged in a similar temporal sequence. Here also, as before, the idea of the past event is neutral and situated at the intersection of the two manifolds. In this way, Holt seeks to prove that images or ideas are in no sense subjective or mental, but are clearly objective and neutral, in so far as they are not within the 'skull' of the observer, but as individual members of the conscious cross-section, are integral parts of the larger objective neutral universe.

The neutrality, or objectivity, characterises not only the several contents of cognition, but it is also the essential character of the affective side of our consciousness. Holt contends that if feelings, such as pleasure and pain, are thought of as 'totally and utterly unique', 'all communication is impossible'. 'Pains and pleasures,' he maintains, 'are as common to us all as are leagues and fathoms, day and night; and that is enough, in this case, to prove that they are neutral entities'. (*Ibid.*, p. 110) 'Pains and

pleasures are not in us, but are in the outer world. A sunny landscape may give a sorrowing person no pleasure at all, yet everyone else will declare that it is a pleasant sight. The pleasantness is "out there" waiting to be perceived, like the colours of the trees and the acreage of the fields. Not only are the feelings of pleasure and pain neutral and objective, but neutrality is characteristic of our emotions also. Holt falls back upon the James-Lange theory of emotions to prove that bodily movements are prior to psychical emotions and are exclusive causes thereof. Emotions are not so much subjective experiences as bodily affections, and as such they are neutral and objective. The contention of James is that emotions, looked at from one point of view, appear mental, and viewed from a different side, appear objective. It would be a mistake to suppose that anger, love, and fear are purely mental affections; to a great extent, they are affections of the body. Further, in an article entitled 'The Place of Affectional Facts in a World of Pure Experience', James points out that, in literature as well as in common language, there are certain expressions, such as 'painful place', 'weary road', 'giddy height', 'jocund morning', 'sullen sky', etc., which clearly betray the amphibious nature of emotions. The amphibious character of emotions is simply noted by James, but he never calls them neutral, which, however, Holt thinks should be their precise description.

According to Holt, volitions also are neutral and objective in the same way as the other contents of mind. Holt maintains that purpose or will is only the behaviour of the body in relation to some features of the physical environment. It is an activity of the living organism which is a 'constant function of some features of the environment', precisely 'in the same sense' in which 'the orbit of our earth is a constant function of the position of the sun around which it swings'. (*The Freudian Wish*, pp. 58-59) Just as a physical law is a statement of the constant function between one process or thing and some other process or thing, so purpose is a law which expresses the constant function between the behaviour of the organism and some features of the environment in relation to which the organism acts. The purposive behaviour of the living organism, in relation to the environment, is put exactly on the same level as the behaviour of the two physical bodies in relation to each other. In purpose or volition, there is 'nothing at all mysteriously subjective, and it is a law of the same type as is found in the neutral realm logically antecedent to either

matter or mind'. (*The Concept of Consciousness*, p. 288) Purpose is not the 'fixed idea' of an end, and it is not necessary that the agent should be conscious of his purpose. A valuation is a 'law, a genetic formula, and is statable, discernible, and open to the gaze of all who care to take cognisance of it'. (*Ibid.*, p. 291) A purpose can be stated in the form of an equation, or a mathematical proposition or formula, though it may not be in all cases quantitatively exact. (Cf. *Ibid.*, p. 287) Given the purpose as the law of action, it generates of its own inherent activity (the activity is logical) the series of particular actions in which the purpose is said to be realized. (*Ibid.*, pp. 288 and 293) The case is precisely the same as when the law defining a triangle (the two sides and the contained angle) being given, the triangle is generated as a matter of logical necessity. 'The actions of a man who has a purpose are governed by that purpose: and this is, in so far as he is able to carry out his purpose, the law of his actions. And in so far it may be observed by others that his actions are the logical consequence of his law or purpose'. 'This logical necessity is further identified by Holt with natural necessity. (*Ibid.*, pp. 284-286) Thus the process of mechanization of purposive activity is complete.

It is in this way that Holt seeks to give an account of the nature of consciousness and its various forms. Thus, if according to Holt consciousness is only a cross-section of the universe defined by the specific response or the behaviour of the organism, and if the distinction between consciousness and its object is annulled and the two are conceived of as identical, it is interesting to observe what status is assigned on such a theory to the self or the knower and its activities. Holt frankly admits that the 'manner in which a cross-section is defined by response' is his 'definition of the knowing process'. (*Ibid.*, p. 178) According to him, 'the body' serves admirably the function of the 'metaphysical subject'. The unity of consciousness, again, is sought to be explained by the unity of the central nervous system. (*The Freudian Wish*, pp. 174-5) The central nervous system is regarded as a

'perforable central exchange where messages from the outer world meet and react on one another and on "the so-to-say stored stimuli", and whence the return impulses emerge'.

Furthermore, the unity of consciousness is impaired exactly in the same proportion in which the unity of the 'central nervous exchange' is impaired; and the disocula-

tion of personality, cognitive as well as volitional, means the dissociation of the neural complex. Again, it is not very difficult to explain the correlativity of subject and object in consciousness by means of the specific response relation theory. For, in the response relation, the body performs the function of this correlation. It seems that

'without the body the outer object would obviously never become the object of behaviour, and should otherwise the response relation turn out to be the cognitive relation, the physical organism will necessarily take its place as "correlate of the object", and supersede the metaphysical subject.' (ibid., pp. 175-6)

In this identification of the subject with the physical organism Holt finds a strong supporter in William James, according to whom the subject is nothing but a 'collection' of certain 'motions in the head or between the head and the throat'. (*Principles of Psychology*, I, p. 301) So Holt does not feel any scruple in asserting that 'behaviourism will be able to give a complete account of cognition without invoking the services of the "metaphysical subject" or of any of its swarming progeny of ego's'. (*The Freudian Wish*, pp. 170-7)

In the cross-section theory of Holt it is simply impossible to find any place for introspection. If consciousness has its locus in the objective world along with physical objects, then introspection as a method of inner observation is of little help in the knowledge of consciousness. So the tendency of Holt is towards belittling the so-called virtues of introspection. Introspection, according to Holt, is not a simple act of immediate perception, but is a very complicated process involving both memory and judgment. (*The Concept of Consciousness*, p. 198 and also p. 201) In short, it is a self-conscious reflective judgment. When a content is present to introspection, it is not an immediate presentation, but is an idea thereof revived by memory and affirmed by reflective judgment. In this manner, introspection establishes the existence of a psychic event. But there may be cases in which the content may be so evanescent that its revival later, in memory, may be impossible, or it may be of such a character that on its reappearance it may be different from the original content and may not be capable of being recognised. Introspection further fails to take account of a large section of consciousness that has been described as the 'fringe', and can hardly explore the region of mind named 'subconscious' by Freud. (See ibid., p. 198, and *The Freudian Wish*, p. 86)

In the study of animal behaviour, introspection is wholly inapplicable, because there we are not concerned so much with what is going on within the animal's mind as with what is manifested in its outward behaviour. (*The Freedom Wish*, p. 57) But even if we consider the usefulness of Introspection as a method for studying human thought or consciousness, we meet with no better results. For what is consciousness after all? It is that portion of the environment which is defined by the selective response of the organism. It is one among other objective facts. So introspection, as a method of inner observation, has hardly any application to the phenomenon which is objective and external to the core. In order to apprehend thought or consciousness, we have to direct our attention to what the organism is doing, that is, to its specific response or behaviour in relation to the objective environment.

Holt naturally revolts against the conception of consciousness as something unique, or subjective, and thus constituting a peculiar realm private to the individual, and open only to his introspection. 'To say that consciousness or thought is a mysterious phenomenon, hidden within the mind of the individual, apart from the world of objective fact, is to fall back once more upon the mythological or animistic interpretation of nature which discerns, behind every occurrence in external nature, a hidden secret. Physical science has long abandoned the search for the hidden *vis viva* behind merely physical occurrences, and believes that the study of the external behaviour of phenomena would yield a knowledge of their 'hidden secrets', if they really did possess any. Physical objects do not possess an inner life as opposed to an outer life, and keep their secrets therein hidden from external observation. If nature really possesses any secrets, these are fully manifested in its outward events or occurrences. The same considerations are applicable without any reservation to the phenomena of psychology. In studying thought, or consciousness, we have always to remember that

'the "secrets behind" phenomena lie in the phenomena and are to be found out by observing the phenomena and in no other way'.

And so the conception that

'the inscrutable "thought behind" the actions of a man, which is the invisible secret of those actions, is another myth, like the myths of the nature gods and the *vis viva*'. (*The Freedom Wish*, p. 65)

'Thought and consciousness exist, to be sure, but 'tradition has turned thought into a myth by strictly mislocating it and locating it in the wrong place'. (*The Freedom Wish*, pp. 48-49)

Instead of looking for thought or consciousness within the mind of man, we should look for it in his outward actions directed towards an objective environment. If we wish to know what a man is thinking, we should observe what he is doing, because it is rather in his behaviour than in some secret depths of his soul, that thought has its abode. 'Thought is often a mere irrelevance, a surface embroidery on action.' 'What is more important, the very best that the man could have told us would have been no better than what we have learned by watching the man.' It appears therefore that 'the study of what men do, i.e. how they "behave"', comprises the entire field of psychology', and 'introspection gives us no clue as to how we achieve even the least voluntary movement'. (*The Freedom Wish*, pp. 86-87) So 'experimental psychology should relinquish its fetish of introspection', (*The Concept of Consciousness*, p. 200) because the sole question to be considered is what the man is doing and not what he is thinking or is conscious of. 'The doctrine of psycho-physical parallelism which 'contrasts physical motion with a secret, inscrutable, "psychical process" behind, is mischievous'. In fact there are not 'two contrasted worlds', the 'objective' and the 'subjective'; 'there is but one world', the 'objective'. In the conception of consciousness, thus formulated, 'the subjective as such' is 'done away with'. Consciousness, therefore, is 'not a substance, but a relation—the relation between the living organism and the environment to which it specifically responds; of which behaviour is found to be this or that constant function'. 'There will be no consciousness except in a situation where both living organism and environment are present and where the functional relation . . . exists between them.' In consciousness which is the total situation, the 'body' is the knower and 'the enviroing objects responded to' are the known. The objects responded to constitute the contents of consciousness, but these 'are not some pale representations thereof'. (*The Freedom Wish*, pp. 92-97) This means that

'what a man knows are the actual things around him, the objects and events with which he has to deal'; or to put the same thing in the language of Aristotle, 'actual knowledge is identical with its

object', and 'that about which a man thinks is clearly, even for introspection, numerically identical with that upon which his actions turn, and with that which, when he comes near enough, he sees and handles'.

(*Ibid.*, p. 97)

II

R. B. PERRY

Let us now proceed to consider the theory of mind formulated by R. B. Perry, another American realist of considerable eminence. His theory, we shall find, is substantially the same as that of Holt and this fact is acknowledged by Perry himself. (See *The Present Philosophical Tendencies*, p. 305 n.) Perry maintains that there are two different modes of inquiry into the nature of mind. Firstly, there is the method of introspection which is used by religious teachers and human psychologists; and secondly, there is the method of general observation employed by historians, sociologists, and comparative psychologists. In introspection 'the investigator generalizes the nature of mind from an exclusive examination of his own; whereas in general observation, the mind is treated as lying "in the open field of experiences"'. (*Ibid.*, p. 273) 'The two modes of inquiry supplement each other and they together afford us an adequate account of the "whole mind"'.

Applying introspection to the knowledge of mental contents, it is found that it can only yield 'an identification and inventory of them', but is 'incapable of defining their nature'. To the observer himself, his mental contents are immediately accessible; and so he is more intimately 'acquainted' with his experiences, both past and present. But this 'familiarity' with his own mental contents does not imply that he possesses them 'exclusively', or has a 'penetrating or definitive knowledge' thereof. It is quite possible that 'while introspection is the best method of collecting cases of mental content, it is the poorest method of defining their nature'. (*Ibid.*, pp. 273-7)

When the several contents of mind are considered 'distributedly', it is found that they do not reveal any intrinsic or peculiarly mental character. 'The quality "blue", which introspection reveals as the content of my mind, is the same identical quality which belongs to the book which is before me. Again, if any other observer happens to perceive the book before me, then the quality "blue",

which will be in his mind, will be the same quality which is in my mind or in the book. The 'elements of the introspective manifold are in themselves neither peculiarly mental nor peculiarly mine; they are neutral and interchangeable'. Contents of mind, taken severally, coincide with the contents of nature. Only their inter-relation and peculiar pattern exhibit their intrinsic mental character. It is not the whole of nature, or of a given natural body, but only a fragment thereof that finds its way into the mind of a given percipient. And it is further true that 'the particular abstract that is in my mind does not exactly coincide with the particular abstract that is in my neighbour's mind'. (*Ibid.*, p. 277) But this does not in the least imply any dualism of content and thing, or any subjectivity or privacy of mental contents. Firstly, a thing certainly transcends its representation (because the representation is only a fragment of the thing), but it does not in any sense transcend knowledge. Both 'the thing thought about, and the thought are . . . experienced. The thing transcends the thought, but it remains perceivable, or in some such manner immediately accessible' (*Ibid.*, p. 312) Secondly, the notion of the 'privacy of mental contents rests upon the fallacy of "exclusive particularity"'. (*Ibid.*, p. 286) 'The mere fact . . . that ideas are always included within some mind, and thereby excluded from what is altogether not that mind, contributes no evidence for the absolute privacy of mind.' Minds are 'intersecting rather than exclusive systems', and so it cannot be asserted that the contents of one's mind are one's exclusive possession and are incapable of being known by any other mind. (*Ibid.*, p. 288)

Although, 'distributively', the elements of mind coincide with parts of nature, still the fragments of nature, in so far as they enter into mind and assume the status of mental contents, acquire thereby a peculiar inter-relation which constitutes their peculiarly mental character. It is important to show how parts of nature become contents of mind, what determines their abridgment, and what constitutes their being in mind. What is the nature of this 'form of connection' which accounts for the fore-shortening of nature and its transformation into contents of mind? How are we to explain the relation which defines the nature of mental content? The defining relation of mind 'is a kind of action, and it will not be found amidst the content which it defines'. (*Ibid.*, p. 280) 'The peculiarly mental character of contents is due to some kind of activity which is, however, independent of the contents.

Now, is it spiritual activity or the activity of the self which the idealist postulates to explain the character of mental contents? If the evidence of introspection is to be believed, no activity of the self can be apprehended in any immediate self-intuition. The contention that mental activity is revealed in intuition rests on the fallacy of pseudo-simplicity. The so-called mental activity is not really simple but a complex resolvable, as Hume said, into a manifold and nexus of contents. Hence when the 'so-called experience of mental activity is . . . analysed, no activity element is found'. If the defining relation is not mental activity, can it be the feeling of bodily action as maintained by James who holds that introspective analysis does not reveal any characteristic mental process; what it reveals is a 'feeling' of 'some bodily processes, for the most part taking place within the head'? (*ibid.*, p. 284) But even this feeling of bodily action does not solve the problem of a unifying principle either because the feeling of activity belongs to the content of mind and cannot be the activity by virtue of which things become content. Instead of defining mental activity in terms of the feelings of bodily activity, we should rather define it in terms of bodily activity itself.

'A sound "listened to" or "heard" is, by virtue of that action, mental content. Several sounds listened to or heard jointly compose a mental unity.'

Now, listening and hearing are characteristic processes of the nervous system, and lie in the general field of observation and so are hardly amenable to introspective knowledge. (*ibid.*, p. 285)

Mental action, therefore, 'is a property of the physical organism'. (*ibid.*, p. 284) The action of the nervous system is a function of the organism, and like the organism it exhibits the control of interest. The content of the mind is that portion of the surrounding environment which is taken account of by the organism in serving its interests. It is true that neither behaviour, nor even conduct, is mind; but mind is behaviour, or conduct, together with the objects which these employ and isolate. The environment is pre-existent and independent of consciousness. The actual objects are selected from a manifold of possibilities, in obedience to the various exigencies of life. Hence 'a mind is a complex so organized as to act interestingly. . . . That character distinguishes the living organism. . . . The natural mind is thus an organism possessing interest, nervous system, and contents. . . . When

these factors are united, they compose a whole mind' (ibid., pp. 303-305)

III

W T MARVIN

Before passing on to offer comments on these theories, we propose to give a brief account of the theory of another American realist whose doctrine bears close similarity to the views outlined in the foregoing paragraphs. Marvin, in common with Perry and Holt, discards the privacy view of mind and insists that the subject-matter of psychological study 'is the nature, the complexity, and the structure of that which controls reactions, and of the way it acquires this control' (*A First Book of Metaphysics*, p. 258). All information concerning the nature of mental contents can be obtained by studying the reactions of the human organism to the objects of environment. There are no such things as 'the so-called' private sensations, mental images or thoughts inaccessible, by their very definition, save to the observer himself. Sensations, images, etc., are nothing but the objects to which the organism reacts, and consequently there is nothing in them which cannot be observed by an outsider. 'The mental is not a stuff or substance, not a new kind of content, or quality. It is a relationship between observable entities' (ibid., p. 261).

A content becomes consciousness by becoming related in a certain way, that is, by becoming the object to which an organism reacts.¹ The contents or terms, apart from their relations, are neither mental nor physical. The colour 'blue', in itself, is neither physical nor mental. To be physical, it, as an element of the spatio-temporal

¹ There are, of course, characteristic differences between conscious reactions and blind reflexes. 'In the case of blind reflexes the stimulus and the nature of the organism determine the reaction, not the nature of the object. Whereas in conscious reaction, things, their qualities, and their relations determine the organism's reactions. Of course, the organism has to have the structure or the ability to function in response to such objects, for it is the ability which makes us conscious beings, and of course the organism has to be stimulated to function. If an animal's reaction can be wholly accounted for by the chemical-physical effect of an object acting upon it we should regard the reaction as a mere tropism or reflex. But if we could show that colour, as colour, or some relation between a colour and things implied by colour (e.g. a red flag as a sign of danger) controlled the reaction, we should have to call it conscious.' (ibid., p. 260)

world, sustains quantitative relationship with other physical things. To be conscious, again, 'this being as such through its relations or implications, must influence the conduct of an organism'. (*Ibid.*, p. 263) Consciousness may, therefore, be defined on the analogy of a searchlight (borrowed from Hoki) as 'a certain cross-section, a certain collection of entities, belonging to the universe of subsistent entities and definable as a group by its peculiar relation to our bodily reactions'.

The theories of consciousness, outlined in the preceding paragraphs, would reveal that they differ from each other only in minor details, but that there is close agreement among them so far as the vital and the essential elements of the doctrine are concerned. The following are the important features which the doctrines possess in common :

1. Consciousness is not a substance ; it is neither material nor spiritual, it is a relation. It is the relation between the living organism, equipped with a nervous system, and an independent environment, defined by the behaviour or specific response of such living organism. Consciousness is not merely behaviour, it is the whole system of objects, defined by the behaviour of the organism, in relation to the independent environment.

2. In the conscious situation, thus defined, the living organism, or the body, is the knower, the specific response, or the behaviour, is the knowing process or conscious activity, and the several entities, responded to or defined by the specific response or the behaviour of the living organism, constitute the contents of consciousness.

3. Consciousness is not, therefore, in any sense private or subjective, or, in any wise, the exclusive property of any individual. It is not an entity enclosed within the body of an individual, and its abode is not within his 'akuli'. The field of consciousness is the same objective environment where the physical objects also are located.

4. The several constituents of consciousness, such as the subject or the knower, the act and the content, are not, therefore, subjective or private to the individual in any absolute sense, because they, respectively, are found to be identical with the body, behaviour, and the portion of the environment defined by behaviour. The subject, the act, and the content of consciousness lie, that is to say, in the open field of general observation.

5. In order to discover the various contents of mind, such as sensations, perceptions, images, and thoughts, it is not necessary to look within the mind of the individual ; these can be discovered by the study of the behaviour of

the living organism in relation to the objective environment. Similarly, in order to apprehend the mental act, no special process of 'self-intuition' is needed; because the knowing activity, being identical with specific response or behaviour, is open to general observation.

6. The content of consciousness is not a representation of the object cognized, but is numerically identical therewith. The difference between content and object lies simply in the fact that the former consists only of those aspects of the object which are selected by the behaviour or specific response of the organism, whereas the latter is a whole wherefrom the selection is made. Content and object are, therefore, not two different existents, in the sense that the one is inside the mind and the other is external; they are one and the same identical entity.

7. The living organism responds to an independent and pre-existing environment and selects therefrom certain features which become contents of consciousness. The response of the organism to the objects does not make any difference therein, and does not change or modify them in any manner. It simply discovers what is already there, as an independent fact, existing in its own right.

Let us now proceed to consider the main features of this neo-realistic theory of consciousness, as we have tried to state them.

The contention of the neo-realist is that consciousness is a transaction between the neural organism and an independent environment defined by the behaviour of such organism. In the conscious situation the nervous system selects by specific response certain elements from the physical universe which constitute the contents of consciousness. The whole transaction here is wholly a physical affair. If certain elements are selected from the physical universe, and if that selection is the work of the nervous system which is likewise physical, then the final result must also be physical and nothing more. The result is not altered in any way by calling it 'mind' or 'consciousness'; for it remains at the end what it was at the beginning, namely, physical. Take a conscious situation in which we have sensation of a particular colour, say, 'blue'. According to the theory of consciousness under consideration, our consciousness of 'blue' will have to be described in some such way as this. The particular colour 'blue' is a part of the physical universe, it is lying out there in space. It stimulates the neural organism, and this implies that it occasions certain vibrations which impinge on

the retina, and thereby set up a certain process in the optic nerve which is carried finally into a certain region of the brain. Either immediately after this brain process has been set up, or concomitantly with it, a sensation arises which we call the sensation of the colour 'blue'. The stimulations set up by the particular colour having reached the brain, there occurs the response of the neural organism which selects from the universe of things the particular colour 'blue'. We have thus the sensation of blue, which is included in the whole 'cross-section' of objects selected by the response relation. Now, when the whole transaction between the nervous system with its mechanism of response and the particular colour in question which is lying out in space is complete, are we aware of the colour 'blue'? Consciousness evidently does not belong to the neural response, but to the cross-section defined thereby. If this be so, how can one say that one is aware of a sensation and that it is his sensation? If the response as neural is something which is only alongside the objects which it selects, can we have any awareness of the object? Can the mere co-presence of two physical existents create the necessary conditions for cognition? The response must necessarily be distinct from the objects responded to, and in responding we should be aware of the fact that we are responding. In the words of Prof. Alexander, it may be said that 'whenever we know, we know that we know, or that knowing and knowing that we know are one and the same thing'. (*Space, Time and Deity*, II, p. 112) This implies that in any cognitive situation the ultimate reference to the self is essential; without such reference no consciousness or knowledge is possible. The self in the present case cannot be the 'body' or the 'physical organism', because the body is not conscious. We are, therefore, compelled to admit the existence of a correlative responsive reaction which underlies the nervous processes but which itself is non-physical. This non-physical or mental reaction is the response of the self. Prof. Alexander considers 'the specific response doctrine as 'too simple' (*Ibid.*, p. 114 x.) and he differs from it because it 'fails to account for a vital feature in the cognitive situation'. He points out this defect in the following words:—

'The doctrine fails to account for a vital feature in the cognitive situation, as we experience it, namely, that in being aware of the fire, the fire is before me, or it is I who see it, or it is in a sense my fire.' (*Ibid.*, p. 111)

And referring to the specific response theory he points out that in it

'consciousness . . . becomes the name of any field of objects in which anything whatever responds specifically. It becomes a mere name for *completeness*'. (Ibid., p. 118)

If the doctrine of Alexander is considered, it is found that he does not accept the specific response doctrine which regards both the terms of conscious relation as physical. He maintains that one term of such relation must be mental. The response cannot be physical, whereas the object may be so. Consciousness, again, cannot be discovered in the cross-section of the universe; it is essentially the activity whereby the object is known, and as such it is distinct therefrom. Further, in any cognitive situation, the reference to 'I' or self-consciousness is essential, and this cannot be possible unless consciousness is regarded as essentially *unreal*.

At this point the American realists would say—and Holt does actually say—that consciousness cannot be a relation between two objects unless one of the related objects is equipped with a nervous system characterised by specific response or behaviour. Behaviour is essential for consciousness and it comes in when the reflex arcs are integrated into a nervous system. Consciousness is not to be had unless the nervous system has this unique organization. A single reflex arc is 'not "aware" of anything'. (*The Freudian Wish*, p. 62) 'There is specific response or behaviour only when the several reflexes are integrated, and 'the advent of specific response . . . is the birth of awareness'. In the single reflex no trace of sensation is present. It is, indeed, a mystery how the mere compounding of reflexes is capable of producing sensation if it is not present in the original components. It seems rather that what we get by compounding reflexes is more complex behaviour, and not the sort of thing called consciousness.

These considerations suggest the difficulty of explaining consciousness in terms of physical response and stimulus, of interpreting the cognitive transaction as a wholly physical affair, a relation between the physical nervous system on the one hand, and the physical universe on the other. The theory of mind in Holt and Perry is substantially the same. (See *Present Tendencies in Philosophy*, by R. B. Perry, p. 395 n., where he admits the similarity of his view with that of Holt.) Both of them adopt the objective and behaviouristic attitude towards mind. For

Holt the mind is the cross-section of the environment defined by the specific response or behaviour of the living organism; whereas for Perry it is the portion of environment which is taken account of by the nervous system to serve its interests. To describe the behaviour of the organism, Perry uses the term 'interest'. But this term, he holds, is used 'primarily in its biological rather than in its psychological sense'. (ibid., p. 304) In describing a mental act as interested behaviour of the organism, Perry takes his cue from Bergson for whom 'conscious perception' consists simply in 'discerning' and 'separating' that which in matter 'interests our various needs'. (H. Bergson, *Matter and Memory*, trans. by Paul and Palmer, p. 78) According to Bergson, perception is the only activity of mind which serves the interests and needs of the organism. He does not ascribe this instrumental function to the higher functions of mind. But Perry thinks that all forms of mental activity have this biological function. A mental act as interested behaviour is employed to serve the needs of the living organism. To accept such a conception of a mental act is to commit oneself to the view that mind is a biological phenomenon which subserves the needs of life. The biological conception of mind is essentially inadequate. Can we regard mind simply as an instrument which is employed by the organism to adjust itself to the environment? It is certainly true that in order to live we must try to adapt ourselves to our surroundings, and to this end our intellect is of immense aid. But our whole mind cannot consist of intellect merely, nor is intellectual activity the only form of mental activity, and man is not simply a biological animal. There are higher forms of mental activity which are expressed in creativeness and in all sorts of constructive thinking and doing. Such activities cannot be compassed by the definition of a mental act as interested behaviour.

CHAPTER IV

Nio-Realism and the Nature of Consciousness (Continued)

WELTER REALISM

We have seen how the American realists obliterate completely the distinction between the subjective and the objective, and thus identify themselves with the behaviourists, according to whom the mind is purely objective and its subjectivity or inwardness is only a fiction. The British realists dissociate themselves from this view and allow some room for subjectivity. They recognize consciousness as subjective and so maintain that it cannot be regarded as entirely open to general observation. It is not the 'cross-section' of the environment defined by the searchlight of response, it is in some sense the searchlight itself; it is within the responsive organism, and not 'out there' in the objective environment.

I

S. ALEXANDER

In stressing the distinction between 'enjoyment' and 'contemplation', as basic elements of any conscious experience, Prof. Alexander clearly affirms his difference from the objectivistic conception of mind offered by the American realists. The empirical method followed by Alexander forbids him from assigning any privileged position to mind in the scheme of reality. Mind is exactly on the same level as the other empirical finites, and its difference from the latter consists simply in the measure of perfection it has attained, being the least and the highest empirical quality that we know. Beyond this, mind does not hold any prerogative position in the scheme of things. (*Space, Time and Deity*, I, pp. 10-11) There is, however, a characteristic way in which mind is experienced by us. This peculiar mode of experience reveals to us the essentially subjective character of mind, and enables us to distinguish mind from other empirical existents which are given to us in a different type of experience. These different modes of experience are expressed by the terms

'enjoyment' and 'contemplation'. Mind is essentially activity, awareness, or enjoyment, and this activity is experienced by us alongside of our experience of other existents. In my experience these two distinct existences (the act of mind and the object) are connected together by the relation of comprehension, yet the two terms of the total experience are apprehended in different ways. 'The one is experienced, that is, is present in the experience as the act of experiencing, the other as that which is experienced.' (*Ibid.* I, p. 12) In my experience, the mind, in contemplating its object, enjoys itself, and 'these two existences, the act of mind and the object as they are in the experience, are distinct existences united by the relation of comprehension'. (*Ibid.* I, p. 13) The object contemplated is always a non-mental one, while the enjoyed experience is always mental.

The act of mind or enjoyment is never found by itself as a single existent. My perception, at the present moment, of a tree may appear to be a single, isolated event directed towards a single object, namely, the tree. But this is not really the case. There may be going on other mental acts alongside of the mental act whereby I perceive the tree. At any moment a special mental act is continuously united with other mental acts within the one total or unitary condition. Thus my perception of the tree may be united with other mental acts, such as the sight of adjacent objects, the sensation of the cold air, the feeling of bodily comfort, and the like. (Cf. *Ibid.* I, p. 14) Moreover, 'not only is the mental act continuous with others at the same moment, but each moment of mind is continuous with preceding, remembered moments and with expected ones. The continuum of mental acts, continuous at each moment, and continuous from moment to moment, is the mind as we experience it.' Thus, 'immediately, or by a union of many experiences, we are aware not merely of a mental act but of a mind to which that act belongs, which we experience in an enjoyed synthesis of many mental acts, a synthesis we do not create but find'. Mind is, therefore, the enjoyed synthesis of many mental acts. It is the 'substantial continuum' of mental processes which have a conscious quality. (*Ibid.* II, p. 81) Not only is a particular mental act enjoyed, but the whole mind, as the 'substantial continuum' of several mental acts, is also enjoyed. In the same way, the thing is the synthesis of its many appearances which are contemplated by the mind. The synthesis of the appearances is not the work of the mind, but is objective and

belongs to the things themselves. The independent existence of the thing as the system of appearances becomes 'manifest to us in the tendency of the separate appearances to link themselves together'. (ibid. I, p. 14) In conscious experience, mind is only concerned with a selection of the thing, only with its partial appearances; but along with the contemplation of the partial appearances, we are aware also of other appearances with which any one appearance connects.

The object contemplated is always an existence distinct from the mind which contemplates it. The object selected by the mind in contemplation is non-mental and constitutes a fragment of the whole world of Space-Time. It is further always distinct from the mind or his act of apprehension. (ibid. II, p. 82) The selection may be either active or passive. In one case, the objects force themselves upon the mind (e.g. a bright light upon an open eye), while in the other the chief determinant in the selection is the direction of a man's thoughts or feelings (e.g. when a man does not entertain suspicions of a person whom he loves). But this selectiveness of mind does not offer any ground for the conclusion that the object selected is in any sense mind-dependent, or that its existence depends upon its selection by the mind. The object is non-mental and is always independent of the mind; and it owes nothing to the mind except the fact of its selection. (ibid. I, pp. 13-14) For Alexander, all objects of knowledge, whatever they are, are non-mental and independent of mind. Thus sense, percepts, images, concepts, etc., are all non-mental and are all portions of the spatio-temporal reality.

Mind enjoys itself but contemplates the non-mental reality. Contemplation is possible only with reference to a reality which belongs to a lower order of existence. So mind cannot contemplate itself just as it can contemplate a non-mental object which is always a lower form of existence than itself. Mind is essentially activity, process or enjoyment. The characteristic distinction of mind from the non-mental objects consists in the fact that it can never be converted into a non-mental object and thus made an object of contemplation. It is not possible to regard mind as an onlooker contemplating its own passing states from the outside. The act of mind can only be lived through or enjoyed from within. For Alexander, it is a mistake to think that introspection is capable of giving us a knowledge of our mind by making it an object of contemplation. In fact, introspection cannot be regarded as such a self-objectifying process. It does not give us any knowledge

of sense, percepts or images, but can make possible only the experience of mental acts or processes, such as, *seeing, perceiving, imagining, remembering, etc.* Sense, percepts or images are never objects of introspection; these are rather objects of extrasppection. Introspection enables us only to 'report more distinctly the condition of our enjoyment'. For psychological purposes it means simply the 'enjoyment lived through with a scientific interest'. (Ibid. II, p. 89; also I, pp. 1718) Introspection is to be distinguished from ordinary 'enjoyment' in the sense that it is enjoyment lived through with a definite purpose in view, and makes us better aware of the nature of mental act than is possible in ordinary enjoyment. Scientific introspection 'displays the complexities of our mind as careful scientific observation of external things displays their complexities and the relations of their parts and features'. (Ibid. I, p. 18)

If it is not possible to convert the mind or self into an object, how does self-knowledge become possible at all? Alexander's notion of self-consciousness is different from the ordinary conception. As we have already pointed out, Alexander distinguishes two distinct modes of knowledge, —knowledge by contemplation and knowledge by enjoyment. He seeks to explain that both in enjoyment and in contemplation, the term 'of' indicates the knowledge-relation. But in the two kinds of experience the term 'of' is used in different senses. In the case of contemplation or knowledge of object, the 'of' means reference to the 'other' or the 'not-self'; whereas in the case of enjoyment or knowledge of self 'of' means 'apposition'. Self-knowledge is knowledge itself. 'My self-knowledge is,' says Alexander, 'knowledge consisting in myself.' (*Proc. Arist. Soc.*, IX, pp. 28-27; see also *Space, Time and Dialectic*, I, p. 12, and II, p. 89.) The enjoyment of the self or the act of mind implies simply that the act is lived through by the self as part of itself. Awareness and awareness of awareness are regarded as identical. There is no question of consciousness of consciousness, because consciousness itself is self-consciousness. (*Proc. Arist. Soc.*, VIII, p. 228) Alexander rejects the notion of self-consciousness as consciousness of consciousness for two reasons. Firstly, if we believe that besides consciousness there is also consciousness of consciousness, then there is no reason why we should stop at consciousness of consciousness and not go on to a consciousness of that. Thus the process leads us to infinite regress. Secondly, if consciousness becomes an object of knowing in the form

of a presentation, it becomes indistinguishable from a sensible thing and it forfeits its essential character as an activity or a process. (Cf. *Proc. Arist. Soc.*, VIII, p. 223 and XI, p. 18) Consciousness cannot be an object of my knowledge; I can be conscious only of an external and non-mental object. External things are alone related to consciousness, but consciousness cannot be in the same way related to consciousness. It can be an object of knowing, not to another consciousness, but to a being who is superior to a conscious being, that is, who belongs to a higher order of existence (e.g. an angel). It is only the lower orders of existence which can be made objects of knowledge to a higher order of being. Life and matter, therefore, as belonging to a lower level of existence, can be objects of knowledge to consciousness. But since consciousness or mental activity is not a physical thing it can never be an object of knowledge or a presentation. The only way in which we can be conscious of ourselves is by enjoyment; and this enjoyment of our mental acts is possible only in the act of contemplating non-mental objects. In enjoyment there is no bifurcation of mind into two distinct parts, one constituting the object and the other the self or knower. It is immediate apprehension of the mental act or consciousness in the act of contemplating a non-mental reality. Self-consciousness according to Alexander is, therefore, identical with consciousness or enjoyment. The distinction which Alexander draws between the act and the object, or between what he calls the 'ing' and the 'ed', is ultimate. (Cf. *Space, Time and Deity*, I, p. 12) The two elements of conscious experience, namely, the act and the object, are not interchangeable. They cannot change places with one another without forfeiture of their intrinsic character. If consciousness is an act, it must always remain an act; it cannot take the position of an object. Being an activity or a process, consciousness is unique, and as such cannot be converted into an object which must always be non-mental in character. We have an immediate experience of the self in the act of contemplating a non-mental object. In being aware of a non-mental object I not only enjoy a mental act, but enjoy it as my mental act, as the activity of my self. In criticising Holt's 'cross-section' theory Alexander clearly asserts that no conscious process is possible without unique reference to the self. In knowing an object, I must know that I know. Knowing and knowing that I know are one and the same thing. (Ibid. II, p. 112) The conscious

process or enjoyment is, therefore, identical with self-conscious activity. In reply to Broad's criticism Alexander points out that there is no such second mental activity as 'the knowing of the enjoyment', because thereby we would 'have the mind looking on at itself'. If the notion of enjoyment is valid, Alexander further contends, mental act cannot be converted into an object. (*Mind*, XXX, 'Some Explanations', pp. 420-421)

It now becomes clear that mental activity, according to Alexander, can be enjoyed only, but is incapable of being contemplated as an object or presentation. Self-knowledge or self-consciousness is the same thing as enjoyment. It is comparatively easy to understand the conception of enjoyment when it applies to the apprehension of the present mental act. But difficulty seems to arise when the conception of enjoyment is sought to be applied to the apprehension of our past mental states. Is the past mental act enjoyed in the same way as the present one, or is it only contemplated as an object or a presentation? In considering this question Alexander differs from the usual conception that a remembered mental state is retrospectively an object. He points out that the accompanying circumstances and events connected with the mental state have the character of pastness about them and are apprehended as external objects; but the mental state itself is a present event and is enjoyed in the very same sense in which a present mental act is enjoyed. 'Our mental state in retrospection,' he observes, 'is no more an object to us than it was in actual experience . . . The remembered state is a present state, just as much as the actually enjoyed state.' (*Proc. Arist. Soc.*, LX, p. 32) It is not possible to turn one's remembered state 'into a presentation merely by combining with it the attentive attitude'. It is still a present state of one's own mind. (*Cf. ibid.*, p. 32) The point will become clear if the memory of one's own self is contrasted with the memory of the past event. In the act of remembering a past event two elements are involved. Firstly, there is the memory of the event which is presented as a past object, and secondly, the act of apprehending which is present and is not felt as past. In this experience what is past is not the act of mind, but the object. But when I try to remember an event as happening to myself, I find that the event as the past object is before my mind, and is clearly distinguishable from those objects which are actually present, by the fact that it is not present. But my past self is present. 'The memory of myself is a present action

of myself which, by its transitional tendency, renews the past condition.' (*Ibid.* XI, p. 21) The memory of my past self 'is an extension backwards of myself' and 'that extension has got the note which enables us to say that it is an extension backwards in time and not forwards'. (*Ibid.* IX, p. 37) In this way, 'It is not the old self which is brought back, but a renewal of past experience, whereas the object about which myself was engaged in the past is brought back as past, and is not renewed'. This renewal, Alexander contends, is possible because of the fact that the mental action is also neutral. The actual past experiencing is not, as a whole, retained in my mind for my present experiencing, but the 'neural twist' is retained, and on occasion I renew my past. My remembered self is always a part of my present condition. My past and future are always contained within my present. My present self 'is always broad, and is edged by its own past and future'. This is our immediate experience of duration as well as of succession. (*Ibid.* XI, pp. 20-22) The remembered state of myself cannot be regarded as dismembered from my conscious life as a whole; it is continuous with the latter, but in so far as especial attention is given thereto, it stands out vividly from the general mass of my consciousness.

It thus appears that our remembered self is not an experienced object; it is not a presentation in the sense in which external objects are so described; it is enjoyed and not revealed as an object. Further, it is apprehended as standing out more vividly from the general mass of self. The remembered state of myself is a particular renewal of a mental condition as it stands out in prominence against the background.

According to Alexander, mental activity is cognition and the cognitive side of experience is the only thing which is mental. (Cf. *ibid.* VIII, p. 222) 'There is nothing in the mind but acts, and the term 'act' does not imply any special form of activity, such as desire, endeavour or willing, but is equivalent to what we understand by the term 'process' and as such includes passive acts of sense as well as activities of volition. The term cognition used in an extended sense (and not in the restricted sense in which it implies only active processes) includes all mental acts. (Cf. *Space, Time and Matter*, II, 'Mind and Its Acts'.) If we seek to understand the nature of cognition, we find that it is neither a separate kind of action from cognition, nor is it a separate element in a mental act which is distinguishable from the cognitive element in

the act, it is nothing but the conation itself in so far as it is co-present with and refers to an object. The external physical object excites our sense and with it the suggested elements of ideation. The mental stimulation is partly sensory and partly ideational, and is a conation which issues in certain external bodily actions appropriate to the object. And this conation itself is the consciousness of the object which is called perception. Our perception of the object *causes* our behaviour in a certain manner towards the object we perceive. In so far as the conative act refers to its object it is a cognition. The cognitive element of a mental act 'is not anything distinctive of the act as a process taking place in the mental substance itself, it signifies rather that the mental act refers to a cognatum' (*ibid.*)

Conations may be of two kinds, practical and theoretical. When practical conation issues in movements which tend to alter or destroy the object or at least to affect our relation to the object. Thus the perceptual conation of perceiving an apple is primarily one which issues in movements of *seizing*, and *extracting* the apple. In theoretical conation the *issue* of the conation is, however, suspended, as in merely watching the object. Even here the conation issues in movements, but they are not directed to interfering with the object, but to maintaining our attention to it, while inhibiting our normal reaction upon the object (*cf. ibid.*)

Consciousness is thus identical with conation and it is essentially mental activity. Looking closely into its nature we discover that

'it occupies time and occurs in time, and moreover that it has direction in direction varying with the physical object to which the activity is related, so that the activity works in a different direction in *desire* and in *aversion*, in *wishing to lift the arm* or in *not lifting the hand*, in *perceiving a tree* and in *perceiving a table*, in *seeing green* and in *seeing violet*, and in *seeing green* and in *seeing blue*' (*Proc. Arist. Soc.*, IX, p. 7)

Being in time, consciousness has duration and succession, and it possesses direction also, which varies according to the object to which it is related. Besides these features, it possesses different degrees of intensity and is variably toned with pleasure and pain and emotional excitement. Apart from these affective modifications, consciousness is without quality except the quality of consciousness. The only difference which characterises consciousness is the difference of direction. With the

variation of the object the response or reaction also varies. 'According to the quality, the complexity, the grade of the object (as *sensum* or as *perceptum*) the mental activity varies in direction.' (*Proc. Arist. Soc.*, XI, p. 12) Thus, while the direction of consciousness changes with the variation of the object to which it is related, consciousness itself retains the same quality. It has no differences of quality to correspond with the differences of its objects. Its direction or its hedonic tone varies according to the quality, the complexity, and the nature of the object responded to, but this variation 'is not one of quality in the sense in which consciousness may itself be called a quality which mechanism is not'. (*Ibid.* IX, p. 11)

Alexander distinguishes mental action or consciousness from motor processes. Although consciousness always finds expression in such motor reactions as bodily movements, gestures, words, and the like, yet it should be distinguished therefrom, because these motor reactions are themselves *sensa* and physical processes of the body merely. They are part of the objects of mind, but they are not mind itself. (*Ibid.* XI, p. 16, and IX, p. 8)

It thus appears that mind, according to Alexander, is nothing but a system of efforts in various directions, efforts which carry with them feelings of relative success and ill-success which amount to pleasure and pain. Consciousness is nothing but effort with its felt direction to our object, and the affections which attend such effort and direction. The object is always non-mental. The direction and the effort are similar to that which we feel in any desire or voluntary progression,—we realise what it is like if we are stopped short of the object.

We have so far endeavoured to understand the nature of consciousness or mind as conceived by Alexander. In defining mind or consciousness as a system of efforts in various directions, and, therefore, as essentially *conation*, Alexander stresses the necessarily *dynamic* character of mind, and contends that the mind, as such, is always related to an object which, however, must be non-mental in character. The object of mind, whether it is *sensum*, *perceptum*, *idea*, or an image, is yet non-mental. It is the acts of sensing, perceiving, ideating, or imagining which alone are to be regarded as mental.

In common with the American realists Alexander rejects the representative theory of cognition, and strictly adheres to the conception of knowledge as a relation between two elements,—mental act, on the one hand, and the non-mental object, on the other; the relation is

direct and immediate without being mediated by any third entity. But the difference of the view of the American realists from that of Alexander is fundamental in other respects. While the American realists are out and out objectivists and reject the conception of the mental act in so far as they entail the distinction between the acts of sensing, perceiving, imagining, etc., on the one hand, and the objects which are sensed, perceived, and imagined, on the other, thus reducing even consciousness or mental activity to the level of objects (*cross-section theory*), Alexander clearly emphasizes the need for the retention of the mental act in any analysis of cognition and maintains that the distinction between the act and the object is vital, and the one cannot be refused to the other. Although insisting upon the direct and immediate character of the knowledge-relation, Alexander yet fails to agree with the American realists in their objective view of consciousness as the 'cross-section' of the environment, — a view which abolishes the legitimate distinction between the conscious activity or awareness and the object of such awareness. Consciousness, according to Alexander, is essentially subjective; it is mental and can, therefore, be enjoyed only; whereas *sensa*, percepts, images, etc., as objects of mind, are only contemplated as non-mental entities. He considers it a confusion to identify mind or consciousness with the illumined cross-section of the world. Consciousness is enjoyed as essentially mental and is the 'searchlight' (not the physical organism as held by the American realists) which illumines the objects of knowledge which are non-mental.

Alexander is emphatic in his denial of the subjective or mental character of *sensa* or images as maintained by the advocates of the representative theory of cognition. He rejects the relativity of sensations as an argument in favour of the subjectivity of *sensa*. There are, indeed, variations in the sensations of different individuals with respect to their apprehension of the same object; but the meaning of this difference is explained by the fact that individuals with different senses apprehend differently. The *sensum* revealed is still non-mental, but it is only to the appropriate sense-organization that it is revealed without defect or error. Alexander does not make a distinction like the representationists between *sensa* as mental entities, on the one hand, and the physical object, on the other. He maintains that the *sensa* are the partial appearances of the physical objects and have no distinct or separate existence therefrom. The various physical objects

present differences of character and such differences are revealed to our minds in response to the various general attitudes which the mind assumes. And these variations may be described as the particular ways in which non-mental objects exist in relation to the apprehending mind. (*Proc. Arist. Soc.*, X, p. 29) If the *sensa*, contents Alexander, are regarded as mental existents, we are led to subjectivism and we shall be living, as it were, in a world of hallucinations, where there is no possible way of discriminating between veridical and illusory appearances, since there is no available means of comparing these different types of appearances with the common physical object (whereof they are the appearances), the latter being always beyond the range of our direct contact. (Cf. *Space, Time and Duty*, II, p. 109) Alexander holds, therefore, that the *sensa* are physical in the sense that they are actual appearances of the physical things themselves. The thing is the whole containing all the appearances as its parts. 'The reality is the continuous totality of its partial appearances, which appearances are themselves real in turn.' More partial character or fragmentariness of the appearances does not falsify them or render them illusory or unreal. 'A partial appearance remains real and true, though incomplete.' (*ibid.* X, pp. 33-34)

We may now pass to Alexander's consideration of the nature of images. His view that images are physical seems to possess a peculiar importance in view of the fact that it appears to conflict with the deliverance of common sense. He holds that the imaging of an external or physical thing is mental, but the image itself is non-mental or external, or he is even prepared to declare *physical*. (Cf. *Proc. Arist. Soc.*, X, p. 13) Alexander explains that by calling images external or physical he means to say that they possess all the characteristics of physical objects. 'The memory of my friend is a physical appearance of a larger and more complete physical thing, namely, my friend. He may cease to exist, but that does not mean that his image has ceased to be physical. One physical property is to be in space. Images also have spatial properties and are sometimes as vivid as the sensible appearances. A memory-image is the object itself, but as past; it is not a representation or picture of the object. In expectation, again, it is the object itself, but as future, and not a representation of it. Further, in fancy, dream, and all forms of constructive imagination we do not create something which has no existence in the real physical

world. All the materials for such constructions are there in the physical world, and what we create is only a new combination of the already existing real elements. (Cf. *Ibid.* X, pp. 18 ff.)

The non-mental character of images will be apparent to us if we seek to interpret them in the light of what we learn from perception. (*Ibid.* X, pp. 14 ff., and *Mind*, XXX, p. 424) Alexander places our perceptual experience exactly on the same level as our imaginative experience. In both cases the reality itself is revealed to our mind; in one case it is the percept, while in the other it is the image. But the image is as much non-mental as the percept. The difference which marks these two types of experience seems only to be a difference of degree and the mode in which the real is revealed to our mind. In perception we are face to face with reality, and the reality stimulates our sense organs in a certain manner, and evokes a certain form of mental reaction and we are said to perceive the real. But, even when we are not directly confronted with the real object, and have before us, instead of a percept, an image of the real, there occurs the same sort of brain processes, and a similar mental action is evoked. When we have reality revealed to us in imagination, it is the same reality as revealed in perception. There is no essential difference between these two modes of experience: in both cases, mind is complement with the non-mental reality; in one case, it is the image, whereas in the other, it is only a percept. The difference between the two experiences consists in the fact that, whereas in perception we are directly confronted with the real,—the real, as it were, thrusts itself upon us—in the case of imagination, the real is revealed only indirectly, in its imagined form with imperfections and some added elements. In one case, the object is in front of us, and in the other it lies, as it were, behind our back and we have got to turn round to see it. Imagination, according to Alexander, is continuous with perception and grows out of it. 'The image and the percept are . . . the same objects appearing in different forms. The one is physical in the same sense as the other.' 'Hence the image of memory or imagination is tested or verified by reference to the percept.' (*Ibid.* X, p. 17) (For discussions on the nature of images, see Alexander's article on 'Sensations and Images' in *Ibid.*, and *Mind*, XXX, pp. 424 ff.)

The clue to Alexander's theory of the non-mental or physical character of sense, percepts, images, ideas, and thoughts will be found in his doctrine that cognition is

a case of compresence, or togetherness. By the term 'compresence' Alexander means 'co-partnership in one universe'. But this does not imply in any sense that the object apprehended is either spatially or temporally co-existent with the act of apprehending. The object remembered is always prior to the act of remembering and it may have ceased to exist before we remember it. In the same way, the object perceived is also separated from the act of perceiving by a measurable interval. So cognition, as compresence, does not mean either co-existence in time or proximity in space. In this sense any two objects in the universe may be compresent, however separated they may be by an interval of time or stretch of space. The cognitive relation as the relation of compresence is, therefore, universal and is not characterized by any uniqueness. Compresence is the most universal of all relations between finite empirical existents. (Cf. *The Basis of Realism*, p. 3; *Space, Time and Duality*, II, pp. 75, 333) If we remember Alexander's distinction between enjoyment and contemplation, we observe that knowledge by enjoyment, in which we are aware of mental act or consciousness, is something unique, as distinct from knowledge by contemplation which acquaints us only with reality as non-mental. While there is uniqueness in enjoyed experience, knowledge by contemplation is nothing but compresence, togetherness in one universe, and as such is the most universal of all relations between empirical existents. So far as the nature of the relation is concerned, there is hardly any material difference between the relation which obtains between the table and the floor and that which obtains between the mind and the object. Knowledge by contemplation is to be distinguished from the relation of mere compresence between two physical objects, not by the nature of the relation (because in both cases the relation is that of compresence), but by the fact that in contemplation one term of the relation is different, it is mind. Knowledge by contemplation is, therefore, the relation of compresence in which one of the terms is an act of knowing. That knowledge is a relation of compresence is a fact revealed to us in enjoyment. In contemplating a non-mental object, I not only enjoy my own mental act, but enjoy at the same time the relation of compresence or the togetherness of the mental act with the non-mental object. The togetherness is not contemplated but is experienced as a character of my enjoyment. (Cf. *Space, Time and Duality*, I, p. 21; *Mind*,

XXX, 'Some Explanations,' p. 422) Both the act of knowing and the relation of comprehension are enjoyed by us.

For Alexander knowing is, therefore, a simple relation subsisting between mental act or consciousness, on the one hand, and the non-mental reality, on the other. In cognition the non-mental reality is revealed to the mind. The distinction between the act and the object is fundamental and the one cannot change its place with the other. All acts, such as sensing, perceiving, imagining, thinking, etc., are essentially mental in character; whereas all the objects of such acts, such as senses, percepts, images, and thoughts, are non-mental. The reality is not in any way mind-dependent, and the act of cognition does not modify it or alter its nature. Mind does not in any way make nature. It does not make the object of sense or perception or construct the object of thought. My mind is here and the object there; the two are com-present. The object strikes my mind in a certain way; and my mind reacts and apprehends, and finds the object as it is, according to the degree in which my powers of apprehension are developed. True to the realistic spirit, Alexander maintains the mind-independent existence of the spatio-temporal universe, and refuses to recognize the claims of mind for a prerogative position in the scheme of things. The mind is a thing among other things, and the privileged position it occupies in relation to other empirical existents is due to the fact that it is the last and the highest of the empirical finites by virtue of which a certain uniqueness attaches to it which is absent in the existents of a lower level. In fact, mind is ultimately derived from the Space-Time which, according to Alexander, is the matrix of all being. So the mind has an empirical origin and cannot be regarded in any sense as absolutely unique or *sui generis* . This conception of the nature of mind and its place in the scheme of reality should be clearly distinguished from the Idealistic conception. In idealistic systems mind is regarded as the supreme principle of all existence. It is maintained in such systems that there is one Absolute Mind and the other existents, such as matter, life, and finite minds, are only its particular determinations. The idealistic systems start, therefore, with the assumption that mind is the highest reality, and seek to interpret all other finite existents in the light of this assumption. It is in the supreme position assigned to mind as the supreme ontological reality that the real clue to the difference of the idealistic from the realistic position is to be sought. Realism denies this all-inclusive character of mind and refuses to recognize

the mind-dependent nature of reality as postulated by idealism. It asserts the independent reality of the spatio-temporal universe, and tries to bring the mind down to the level of the object and to show that a mind is a thing among other things, without any prerogatives. It is the object which is primary and independent, and the mind which is secondary and dependent. In comprehending reality, we should start not from the side of the mind, but from the side of the object. We must start with observed facts of the empirical world, and not with thought. The method of philosophy should, therefore, be empirical and not rational. This difference of procedure between the realistic and the idealistic systems is a vital one, and it affects throughout their solutions of important problems. The recognition by realists of the status of epistemology as a science independent of metaphysics leads to the denial of the vital creed of the idealists that being is dependent upon knowing, that reality is dependent upon consciousness.

This fundamental difference in the procedures of the two systems of thought is reflected in their respective interpretations of the nature of knowledge and the part which the mind plays therein. In idealism, mind plays by far the most important part. The knowing of reality, for the idealist, means the construction of reality. We are all familiar with the dictum of Kant that it is the understanding which makes nature; and, following him, Green emphasized the function of the spiritual principle in the construction of knowledge and nature. The activity of mind in knowledge is a creative activity and the knowledge of reality means the creation of reality. For the idealist, all existence is penetrated through and through by rationality. It is reason which lends significance and meaning to reality. Intelligibility being the criterion of reality, the idealist does not believe in the existence of anything independent of mind. Apart from mind nothing is intelligible and, therefore, nothing can exist. It is mind, therefore, which in knowledge grasps the real as constituted by its own forms and categories. The nature of the object of knowledge is modified by the mental act which is employed in the apprehension of the object. The mental act or consciousness does not merely lift the veil of reality or reveal those features of the object which exist therein independently of the conscious mind, but it changes and modifies the character of the object and imparts meaning and significance thereto in the very act of apprehension. Knowing in its

essential nature is constitutive, and not merely a process of revelation. The realist differs fundamentally from this conception of knowing, and denies that the mind in any way constitutive of the object of knowledge. Since the realist (as we have already seen) starts with the assumption of the independent reality of the spatio-temporal universe, and conceives mind as one among other entities within that all-inclusive system, he is naturally unable to concede to mind any privilege in preference to the object of knowledge. The spatio-temporal world exists as a finished product, independently, of its own right, and the function of mind in knowledge is only to be aware of the existing features of reality and not to impose thereon anything from its own nature. In knowing, the reality is simply revealed to our mind, and the mind does not in any way modify or alter its character. This conception has been characterised by Rosenquist as the 'open door theory',—a theory which conceives mind as an 'open door' through which the reality comes to us as it is with varying degrees of completeness. The physical reality which is the object of the mind is the thing or the part of the thing which we apprehend; it is in no sense a part of our body or of mind. Our sense organs let the object in, but they do not in principle modify it or change its nature.

The value of the realist's conception of the mind-independent character of reality becomes fully manifest to us when we understand that it is directed primarily against the doctrine of the subjective idealist that the *esse* of sensible things is *percepti*. G. E. Moore's article on 'The Refutation of Idealism' is not directed so much against other forms of idealism as against the subjectivism of Berkeley. It had the merit of bringing home to the mind of philosophers the extravagances of subjective idealism with its doctrine of the mind-dependant character of reality. But it seems to us that the realist in his attempt to cure subjective idealism of its absurdities has gone to the other extreme and has emphasised so much the objective character of reality as to withdraw from the subjective side what legitimately seems to belong to it. In this respect, we have found the American realists to be the greatest offenders, inasmuch as they wholly deny the subjective aspect of experience and reduce everything to the level of objects. Alexander's conception avoids the extreme radicalism of the Americans, and assigns to the subjective side of experience a place in the philosophic scheme.

The neo-realistic theory is not only an attack upon subjectivism, but is directed also against all forms of substance

philosophy. In dualistic systems (of which Cartesianism is the type) particularly, mind has been conceived as a substance, static and immutable in its essential nature and absolutely severed from the conscious processes which constitute its modes or appearances merely. The neo-realistic systems have done a good service in combating this conception of mind as something for which experience gives us no warrant. The American realists, however, in seeking to demolish the substance conception of mind have gone to the opposite extreme of reducing mind almost to a non-entity, of reducing it to the level of objects in their 'cross-section' theory. They have not only rejected the substance conception of mind, but have denied even the reality of mind as an activity or a process. They insist that experience does not offer us any ground for belief in the existence of a 'mental act' as distinct from what we are aware of as bodily action. In this view they may be regarded as the rightful legacies of William James, who failed to distinguish between 'I think' and 'I breathe', and frankly identified mental action with bodily action. The American realists do not recognize any other form of activity than the physical response of the bodily organism; and accordingly they interpret knowledge as a wholly physical affair,—a transaction between the physical organism, on the one hand, and an equally physical external environment, on the other. We have already discussed the inadequacy of this explanation of the cognitive function and have emphasized that in such transaction at least one of the terms should be mental in character. Without such assumption the knowledge relation can hardly be explained.

In common with the American realists, Alexander also rejects the substance theory of mind as conceived by the older thinkers, but he does not go along with the American realists in abandoning the notion of psychical acts as distinct from the physical acts of the organism. He, of course, insists that the physical acts are not something which can be conceived in any sense as wholly disparate from the mental act, and that, therefore, there is hardly any sufficient ground which will lead support to a dualistic conclusion. He contends that neural or bodily action is not only continuous with mental action, but is in fact identical with it. The neural and the bodily acts are one. (The point has been discussed in a previous chapter; see pp. 38-4) But this identity doctrine should not be construed to mean that mental action is degraded to the level of mere bodily action. Alexander wants us to understand by the concep-

tion that, so far as the stuff of mental and bodily actions is concerned, they are identical. The neural action is the mental action but only when it is enjoyed or viewed from within. But when the same neural action is viewed from the outside from the point of view of the external spectator, from the point of view of the physiologist, it is neural, and, therefore, physical. As enjoyed, the neural act is unique; it is mental action or consciousness and, therefore, distinct from merely neural act. But when the same act is contemplated as an object, it is neural, and, therefore, non-mental. It is because Alexander recognizes fully the character of consciousness as essentially mental that he is obliged to part company with the American realists with their positive predilection for behaviourism. Alexander is emphatic in his insistence upon the fact that the knowledge relationship is inexplicable unless one of the terms of such relationship be regarded as mental. He has, indeed, rendered a valuable service in recognizing the importance of mental act as distinguished from the mental substance of the older dualists, on the one hand, and the physical response or the bodily action of the American realists, on the other.

We have already pointed out the value of Alexander's contribution in so far as, in common with the American realists, he accepts the direct and immediate character of our perceptual consciousness, but that as distinguished from them he recognizes the legitimate distinction between the mental act or awareness and the object of awareness as the necessary elements of any conscious situation. The recognition of this distinction between the subjective and the objective elements of conscious experience (mental act and the object) seems to be a great improvement upon the doctrine of the extreme realists of America. All the British realists, with the exception of Bertrand Russell, admit the existence of a mental act and they consider that the evidence in support of their contention is considerable. This is why R. B. Holt, the prominent American realist, describes them (although it seems to us most unjustly) as 'Cartesian dualists of one complexion or other'. (*The Frendix Wick*, p. 206) It seems to me, however, that the views of English realists as compared with those of their *confrères* on the other side of the Atlantic are more reasonable and balanced and represent with greater fidelity the observed facts of experience. They are very cautious in their attitude towards the traditional conceptions and show little proneness to reject, unless, of course, the reasons for such rejection are found to be very consider-

able. Like the American realists, they are never swayed by the desire to startle the philosophic world with some absolutely novel theory, though such novelty is to be had more often at the sacrifice of the facts of experience. The craze for newness and originality is more an ingrained characteristic of the American mind than of the English. The mere novelty of a doctrine is not often an adequate guarantee of its truth. Radicalism in philosophic speculation is very often fraught with serious risks, because the need for a circumspect and balanced mind is nowhere more insistent than in the domain of philosophic thinking. In these qualities the English realists seem to surpass the Americans.

We have seen that according to Alexander, mind is a 'continuum of mental acts, a system of efforts in various directions'. Being a rigorous empiricist, Alexander fails to discover in the mind anything which seems to lie beyond the pale of experience. The mental act or consciousness is revealed to him in an enjoyed experience and the mind as a whole is, therefore, conceived by him as a system of such enjoyments or psychical acts. The account of mind which he offers may be empirical in the sense in which he understands empiricism, but does it really give a satisfactory explanation of the nature of mind? It appears difficult to conceive mind merely as a system of conscious acts unless we deliberately choose to ignore the difficulties which we know to be connected with the theory of Hume. Hume rejected the Berkeleyan conception of the self as a spiritual substance, and he did so rightly as it would seem obvious to all modern minds to whom the notion of a spiritual substance can have hardly any appeal. But even if we dispense with the conception of the self as a substance we can scarcely accept the conception of a bare mental act apart from the conception of an agent, and it seems doubtful whether we are justified in thinking of the self merely as a succession of enjoyed mental acts, after Hume, and not as something which is in a way more than a sum of the series of mental enjoyments. The self, it is true, is inclusive of our conscious life and has no existence apart from it, but it seems difficult not to conceive it also as transcending in some way the series of conscious experiences, and to dissociate from the idea of the act, the notion of an agent or a self as the source of such activity. This, however, does not imply that we are in any manner subscribing to the substance view of self, or regard the self as a transcendent entity beyond the ken of human apprehension. The self is essentially dynamic, its life is lived

through its changing experiences, yet its nature is not exhausted by the sum of mental acts taken together and it somehow transcends the totality of these experiences. The self changes, it grows and develops and yet it retains its identity, it is the old self-same self. It is a unity pervading its manifold changing experiences and is throughout continuous. As such the self is never to us an unknown *X* and never appears to us as 'something we know not what', as Locke has said. In this respect the contention of Alexander that it is only in an enjoyed experience that the self is revealed to our knowledge appears to us to be valid. The self can be given to us only in immediate experience and in such experience alone is it revealed in its true character. It cannot be given to us as an object. If the self is essentially activity, its dynamic character can only be apprehended in immediate experience and not by means of reflection which would necessarily convert into an object what is really a process. This contention can hardly admit of any serious misgiving if we remember the refusal of Kant to convert his transcendental ego into an object of understanding in the same way as he was able to objectify the sensible experiences. Understanding always seeks to interpret things by means of categories or concepts, and the conceptual rendering results in the objectification of entities into clear-cut and definite things. Kant held that the nature of the self could not be comprehended by means of conceptual understanding and realised truly that as an object of the understanding it is never revealed in its true character. He was, therefore, obliged to conclude that the self is unknowable in the sense that it lies beyond the range of the conceptual understanding; and we think that we have no reason to differ from Kant in this conclusion.

It seems to us that the defect of Alexander's view does not lie at all in the emphasis he lays on the nature of self-knowledge as something immediate without the duality of the self and the not-self; but it seems to lie in his conception of the self as identical with the conscious act. He does not differentiate between consciousness and self-consciousness, between the self and its acts. The self, as he conceives it, merely consists in transparent acts of consciousness, and the consciousness of self is merely the knowledge which is the self. This view seems to us to be capable of but one interpretation; and that is that self-consciousness in the usual sense of the expression is being degraded to the level of mere consciousness, rather than that all consciousness is being levelled up to self-consciousness.

If this be the real meaning of Alexander's conception, we are yet to be convinced of the possibility of any form of conscious experience without an accompanying act of self-consciousness. Mere consciousness can hardly take the place of self-consciousness, and in this connection it is well to remember once more of the Kantian conception of the 'I think' or the unity of self-consciousness as capable of accompanying all conscious determinations, a conception which, it seems to us, remains yet to be successfully challenged. Nothing can enter into our experience unless it has essential reference to the self. It appears doubtful whether *mere* enjoyment of the mental act can constitute a knowledge thereof unless such enjoyment be also self-conscious enjoyment. Alexander regards enjoyment as much a mode of knowledge as contemplation, and, as such, a bare enjoyment, apart from the accompanying self-consciousness, can hardly be accorded the status of a valid mode of knowledge. It is true that the self-consciousness involved in the enjoyment of mental acts may not be explicit or clearly formed, but only implicit. Yet it is there, and without it enjoyment even becomes an impossibility. These considerations make it impossible for us to accept Alexander's identification of consciousness and self-consciousness and his contention that the self is nothing but the series of conscious acts.

We have noticed before that Alexander reduces mind to a system of psychical acts and everything else is reduced to the level of non-mental objects including such entities as images, thoughts, etc. Mind is only a system of transparent activities and the contents of such activities, whatever they are, are always non-mental. Alexander maintains that sense and percepts are aspects or appearances of reality, not in the sense that they are in any manner distinct existents from the real (as held by the representationists according to whom sense and percepts as psychical existents are distinct from the real) but in the sense that they are real, though not the whole of reality, but only a fragment or selection thereof. In both sensation and perception therefore according to Alexander we are directly and immediately acquainted with the real object without the interposition of any *tertium quid*. He seems to be in the right in maintaining that there is real presentationism in both sensation and perception. But whether in the case of our imaginative experience presentationism can be maintained with such indubitable certainty, or whether the images, as objects of the acts of imagination, are non-mental in character, and possess the

same status as the percepts, are questions upon which there may be legitimate divergence of opinion.

Let us take up for consideration, firstly, the conception of the non-mental or physical character of images. The non-mental character of images follows logically from Alexander's definition of mind as essentially an activity or process of 'enjoyment'. If mind is enjoyment, then images being content, that is, contemplated, can never be a part of the mental process and are, therefore, necessarily non-mental. Alexander does not see any essential difference between senses and images as contemplated objects, and holds them to be 'on the same footing'. It seems to us that it is somewhat difficult to infer the non-mental character of images from the premise that they are of the same nature as senses. The premise from which the conclusion is drawn does not appear to us indubitable. In considering the relation between senses and images we are rather inclined to agree with the view of G. F. Stout when he maintains that the difference between the two entities is 'at bottom . . . a difference of kind, not merely of degree', since 'images do not strike the mind in the same way as the actual sensations'. Images appear to us as essentially psychical, mental or subjective, whereas the senses seem to be non-mental and objective. The vital difference between the two becomes apparent when our apprehension of senses is contrasted with our apprehension of images. In the former we feel a sense of hopeless dependence. What happens does not depend primarily upon us, but on conditions which are absolutely independent of us and to a large extent beyond our control. It is possible for us to bring these conditions under control only in an indirect manner and only after these have been observed and obeyed. In the latter case we find ourselves considerably free. Images are to a large extent within our volitional control; we carry them with us, can create and destroy them, so that they appear to form part of our private world in such a manner that no one but ourselves can directly experience them. We feel that the images form an integral part of our life and experience in a manner which is wholly foreign to senses. The cumulative effect of these facts seems to point to an intrinsic difference between images and senses. Further, the distinction between enjoyment and contemplation, which is responsible for Alexander's theory of the non-mental character of images, seems to be too rigid. While admitting the character of mind as essentially activity or process, is it not possible at the same time to regard it as including

within itself certain results or products of its own activity which are themselves also mental? In the case of constructive imagination it appears beyond doubt that though the elements for the construction are all drawn from the physical world, yet the mode of the construction and the way in which the materials get themselves arranged clearly betray their psychical nature. The images with which we are familiar in artistic creations are the products of constructive imagination, and in this sense their inseparability from the mind can hardly be questioned.

In denying the non-mental character of images and in recognizing their essential difference from sense, we are far from suggesting that they are in any sense unreal. Considering the case of memory-image first, it is to be observed that it has no existence in and for itself, but has always an objective reference. Its essential nature does not lie in representing or picturing the past object as is often mistakenly thought, but it consists in serving as a sign which signifies or *means* the real object. The two characters of image should be kept distinct. As a psychological existent it is essentially sensuous, whereas in its logical character it is meaning and always has objective reference. In reproductive imagination our experience does not terminate in the image, but the image is essentially transitive in character and always transcends itself and tends to pass on to the object to which it refers. The image is not, therefore, absolutely subjective, nor wholly our private possession, but is objective also in the sense that the essential nature of our consciousness consists in its self-transcending character, and our consciousness of the image does not, as we have insisted, terminate in the image itself, but being essentially transitive, involves always an objective reference and grasps the real object outside and independent of it. Even if we consider the nature of fancy and constructive imagination we shall find that however fanciful and unreal the nature of such imagery may appear, it is yet not without objective reference. The child even believes that its fancies and imaginings are not objectless. It takes them always to have some basis in reality.

We come now to the second point to which we have referred before. The question is whether memory-knowledge is presentative or representative. Alexander contends that it is presentative no less than our sensuous or perceptual consciousness of objects. We are inclined to agree with him in this view. We do not think that the image is a picture of the real object, and in reproductive

imagination we grasp the reality through the mediation or representation of the image. We have emphasized the psychological and the logical character of the image as sign and meaning respectively, and in any conscious imaginative experience these two elements are found inseparably blended together. The image has, indeed, its sensuous nature, but in remembering the past this sensuous content is so completely overshadowed by its logical significance or the meaning element that we very rarely become explicitly aware of the image content as such, because consciousness is completely monopolized by the real object which it signifies. In memory-knowledge, therefore, images do not have any representative function, and the nature of consciousness being always self-transcending, images mean the real object itself and we grasp the real *directly* and immediately. So far, therefore, we have no reason to differ from Alexander. But when, in his anxiety to stress the identical nature of sense and images as non-mental entities, he seems to ignore the distinct existence of images and regards them as the same as the physical object, we find it difficult to follow him. The image for Alexander is always the object or at least a part of the object remembered, and it is declared to bear on its face the mark of the past. The object is congruent with mind as past. The past is revealed as past. It seems that Alexander regards only the existence of imaging and not of the image, since the image is the physical object itself, but only with the mark of pastness written as it were on its forehead.

Further, the way in which Alexander seeks to explain the direct revelation of the past object in memory does not seem to us satisfactory and hardly appears as consistent with his theory of cognition as compearance of the mental act and the non-mental object. Alexander contends that images have the mark of the past or future because of the conation involved in knowing them. Thus he observes:

'When I say that images have the mark of the past or the future because of the conation involved in knowing them, I mean only that because your mind moves in the two cases in two different directions of enjoyment, the corresponding object appears to you as past or present.' (*Proc. Arist. Soc.*, XII, p. 300)

Alexander maintains that the object as it is revealed to memory is really past, and that it is on that account that the appropriate act of conation possesses a given character. If the character of pastness really belongs to the object,

then the act of cognition appropriate thereto derives its specific character from the nature of the object. But if the sole source of knowledge that the object is past lies in memory, then we must seek the clue in the character of the act of cognition, and as a matter of fact this is what Alexander does as will be evident from the passage quoted above. If the pastness, as the character of cognition, or mental act, is only enjoyed, how is it possible to refer this pastness also to the contemplated object, or the thing remembered? It would seem impossible because the pastness is enjoyed as the given character of cognition or mental act, and cannot, therefore, be contemplated. This consequence seems to follow directly from Alexander's conception that the mental act can only be enjoyed and not contemplated. But if we still adhere (as Alexander does adhere) to the conception that the pastness of the object is due to the character of our conational attitude towards the object, then not only does it collide with Alexander's contention that the object is really past, but it also appears to be inconsistent with the theory of cognition as comprehension upon which his realistic superstructure is built. We cannot say (if we stick to the theory of comprehension) that in cognition the act of conation imparts its character to the contemplated non-mental object or that any enjoyed character of our own act of cognition is a guarantee for any character in the non-mental object. Further, if according to Alexander, mind is a finite among other finites, it has no prerogative to attribute features to these finites on the ground of characteristics which it enjoys in its own emergent character of consciousness. If the pastness can be enjoyed only as a feature of mental act, it cannot be contemplated as a non-mental object, because on Alexander's view what is enjoyed cannot be contemplated.

It appears to us that the notion of 'comprehension' as conceived by Alexander does not adequately describe the conscious situation. Comprehension as a universal relation holds between any two empirical finites. As comprehension the relation between the table and floor does not essentially differ from the relation between the mental act of consciousness and the non-mental object, the only distinction being that whereas in the former both the terms of the relation are physical entities, in the latter one term at least is mental. The motive behind the description of the cognitive relation as an instance of the universal relation of comprehension seems to lie in Alexander's desire to link up the various empirical finites in an unbroken chain of

continuity and to exhibit them as marked by a complete absence of any gap or hiatus. This is demanded by his Space-Time hypothesis which seeks to derive all finite existents, from matter up to mind, from the ultimate matrix and thus to show their essential continuity. The relation between all empirical finites is of one type, and the relation which holds good of two physical existents must also be shown to hold good of the relation between the mind and the physical object in order to preserve the continuity demanded by the metaphysics of Space-Time. The relation of compresence is descriptive of a feature of the cognitive situation, but cannot be regarded as in any sense describing its essential nature. It describes simply the fact of the togetherness of the mental act and the non-mental object in the knowing situation, but does not explain its essential nature. It seems, therefore, that Alexander gives rather an undue importance to this relation of compresence at least in so far as it applies to the cognitive situation.

Further, we may consider the conception of Alexander (which follows from the theory of knowledge as compresence) that the act of consciousness in relation to the non-mental object is always selective. The mental act is appropriate to the non-mental object with which it is compresent, and its function consists simply in selecting those features from the object to which it can fittingly and appropriately respond. The character of the reaction is determined by the nature of the object responded to. These are all plain facts so far as the cognitive relation is concerned, and there is hardly anything in them to which any serious exception can be taken. But this explanation of the cognitive situation does not seem to apply to all forms of conscious apprehension, and it, therefore, appears inadequate just to that extent and to that extent alone, however valuable it may be within its legitimate sphere. If it is true that in sensuous and perceptual consciousness, or even in memory-knowledge, the selective character of the mental act is predominant, yet it must be admitted that this character does not belong to all forms of consciousness, and we find it absent in the processes of constructive thinking, although such processes are based upon and emerge out of perception. In constructive thinking we are to a large extent freed from the coercion of spatio-temporal compresence with the non-mental object, and this independence of the objective non-mental reality imparts to our thinking process a wide and an unlimited field for construction and creation. In thinking, there-

fore, our consciousness ceases to be selective merely and appears in the new rôle of creator.

II

BERNARD RUSSSELL

The best course to deal with Russell's theory of consciousness seems to be to consider it in relation to Alexander's theory. The fundamental point of difference between the two theories consists in the fact that whereas Alexander insists on the elements of mental act and non-mental object as basal to our conscious experience and rejects the notion of a *tertium quid* in the form of a content, Russell rejects the conception of mental act as something which is neither empirically discoverable nor theoretically indispensable, and is content to retain only the content and the object. This conception brings Russell close to the American realists' conception of consciousness as a 'cross-section', only in so far as the abandonment of the notion of mental act is concerned, but with an important difference which is to be found in Russell's refusal to accept the American realists' rejection of the content element in conscious situation. Thus for Alexander there exist in conscious experience only the mental act and the non-mental object; for Russell, only the content and the object and no act; and for the American realists there is only the object element and neither act nor content. There is another important point of difference between the theories of Alexander and Russell. Unlike Alexander, Russell believes that images are essentially mental in character and makes a definite distinction between images and sensations, a distinction which is one of kind and not merely of degree.

In his rejection of the conception of a mental act, Russell is influenced by the views of W. James and the American realists on the one hand, and behaviourists like J. B. Watson on the other. (Cf. *Analysis of Matter*, pp. 22 ff.) Russell starts to work out his theory of consciousness from the usual conception of it which involves the distinction between the three elements of act, content, and object, and he takes Meinong to be the typical representative of this ordinary conception. But he differs from Meinong in the latter's analysis of consciousness. According to Meinong, there are three elements involved in the consciousness of an object, namely, the act, the content, and

the object. Russell seeks to follow this distinction with the aid of a concrete example. Suppose we are thinking of St. Paul's. Here, according to Meinong's analysis, we should have first the act of thinking, which would always remain the same whatever the object of thinking be. Secondly, there is the character of this thought as contrasted with other thoughts, and this is the content. And finally, there is St. Paul's Cathedral which is the object of our thought. 'The three elements of act, content, and object are necessary to constitute the one single event described as 'thinking of St. Paul's'. (Cf. *Analysis of Matter*, p. 17)

Russell thinks the above analysis to be mistaken though he believes that it affords a 'useful schema' in terms of which other theories may be stated. He unequivocally repudiates the 'act' of thinking which Meinong's analysis implies, and considers it 'unnecessary and fictitious'. 'Empirically,' he says, 'I cannot discover anything corresponding to the supposed act; and theoretically I cannot see that it is indispensable.' Our thoughts are usually expressed in the form 'I think so-and-so', and the word 'I' always suggests that the thinking is the act of a person. But the person cannot be regarded as the essential ingredient of any single thought, but is rather 'constituted by relations of the thoughts to each other and to the body'. It is possible to admit that thoughts are capable of being collected into different 'bundles' as it were, each such bundle bearing the label of this or that man's thought, but it is not possible to discover in any single thought anything like a person as the essential constituent thereof. It appears, therefore, that the person or the self is not an entity distinct from the thoughts in their relations to the body, but may be regarded, if we are at all willing to insist upon the retention of the conception, as something which is no more distinct from the mental occurrences as they exist in connection with the physical organism. The grammatical forms such as 'I think', 'you think', 'Jones thinks', etc., are considered by Russell as 'misleading', and he is anxious to substitute for these forms such expressions as 'there is a thought in me', 'there is a thought in you', etc. He seems to think that these grammatical forms of expression have helped to perpetuate the superstition that, connected with every conscious process, there is an active agent as the originator thereof. And further, since there is neither empirical nor logical justification for the conception of an 'act', it is better to banish such modes of expression from the domain

of philosophy. This reminds us of the similar arguments offered by W. James when he denied the conception of the 'I' or the thinking self and held instead that 'it is thought which thinks in me'. And in this view of Russell the influence of James is predominant, and Russell himself acknowledges his indebtedness. (*Ibid.*, pp. 17-18, 22)

After rejecting the notion of an 'act', Russell is obliged to be satisfied only with the content and the object. He points out that the realists as a rule suppress the content and maintain that a thought consists either of act and object (e.g. Alexander) or of object alone (American realists). He admits that the realists who retain the 'act' feel no peculiar difficulty in explaining the remembering of a past event. The act of remembering occurs now and has a certain essential relation to the past event which it remembers. But the difficulty presents itself only to that type of realist who retains only the object and denies both the content and the act. Though the act theory solves, according to Russell, the difficulty involved in memory-knowledge, yet he cannot accept it, because it 'seems mythical' and 'is not to be found by observation'. So he is forced to recognize the content element at least so far as the explanation of memory and thought is concerned, and his theory of memory is 'more akin to idealism' than realism, because the latter as a rule suppresses the content. But if Russell's view resembles idealism in its explanation of memory and the retention of content element becomes necessary for such interpretation, yet in other respects (e.g. in his explanation of sensation) he is a realist in the accepted sense of the term. This explains the following statement:

'I have been in the past a realist, and I remain a realist as regards sensation, but not as regards memory or thought.'
(*Ibid.*, p. 22)

With regard to sensation Russell finds it necessary to retain the object merely (since he has already rejected the act, and seems to think the content element superfluous in the interpretation of sensation) and because it is only in the case of memory and thought that there is any need for the retention of both content and object. (*Ibid.*, pp. 20-21)

Russell does not believe with the idealists or with some realists (e.g. Alexander) that relation to object constitutes an ultimate or irreducible characteristic of mental phenomena. He refers to his earlier view in which he recognized the objective reference to be the essential character of all mental phenomena, except pleasure and pain. But now

he is convinced of the untenability of this view. The reference of thoughts to objects is not so simple and direct as some thinkers have thought it to be; it is rather indirect and more or less derivative, involving largely certain *beliefs* that what constitutes the thought is connected with various other elements which together make up the object. An instance will help to make the point clear. Suppose I try to think of a town which I had occasion to visit some time ago. In thinking of it I recall images of the various things, say its buildings, streets, churches, temples, and many other things which interested me then. Now I believe that if I again visit the same town I would see the same things as I saw them in the past, and my present thought-images are somehow connected with my past experiences of the actual things themselves and essentially refer to them. But these things to which my present thought refers are not merely some thoughts of mine, they stand in a relation to my present thought and I am aware of it. Now the awareness of this relation is a further thought, and constitutes my feeling that the original thought had an object. In this instance the relation of my thought to a remembered object is not a simple and direct relation, but is mediated by other acts of awareness and also a feeling of belief.² Russell cites the instance of pure imagination in which we have thoughts similar to those we have in reproductive imagination, but without accompanying beliefs. Thus in this case our 'thoughts do not have objects or seem to have them'. We have here merely the content without the object. On the other hand in the case of sensations it is 'less misleading' to say that we have object only and not content. Hence Russell finds it difficult to believe that our thoughts always refer to objects since the distinction between content and object can hardly be regarded as the characteristic of all forms of consciousness. Whereas in memory both the content and the object are necessary, the content alone and not the object is essential in pure imagination, and the object without content is all that is required in sensation. (*Analysis of Mind*, pp. 18-19)

Consciousness, according to Russell, does not constitute an essential characteristic of mental phenomena. It is not a simple quality, but a complex, which is far from being a universal characteristic of mind. (*Ibid.*, p. 40) and

² We shall find later that Russell regards belief as a feeling and also as a mode of activity. Though, as we have seen, he rejects the act in thinking, he is obliged later on to admit act in the case of believing.

p. 308) For this view Russell gives two reasons. Firstly, in considering the behaviouristic psychology he finds it reasonable to accept the position that something closely analogous to knowing and desire exists among the lower animals, although knowing and desire can hardly be described as consciousness. But on that account alone we cannot say that consciousness is not the essence of mind, unless of course we find it also reasonable to maintain that animals also possess minds and there is no serious gap between man and animals in the evolutionary development. Russell believes that the lower animals possess minds exactly in the same sense in which human beings are endowed with them. Secondly, the unconscious contents of mental life disclosed by the latest researches of Sigmund Freud point to the fact that there may be regions of mind unexplored by consciousness. Russell, therefore, concludes that consciousness can by no means constitute the essence of mind. 'There may be minds where consciousness is inoperative, and thus there is the further conclusion that mind is "only a matter of degree"'. (*ibid.* Also p. 202)

Consciousness is, therefore, not simple but extremely complex, consisting of such elements as image, meaning, belief, and an essential objective reference. To define the nature of consciousness Russell analyzes its various modes, such as sensation, perception, imagination, and thought.

1. *Sensation*.—Russell contends that sensation 'is the sort of thing of which we may be conscious, but not a thing of which we must be conscious'. In itself sensation is 'not an instance of consciousness, though the immediate memory by which it is apt to be succeeded is so'. This is why Russell maintains that sensation is neither mental nor material, but neutral, and this further accounts for his statement that he is a realist so far as the existence of sensation is concerned. Sensation when it is not an object of consciousness may figure as a physical reality, but as an object of consciousness it assumes the rôle of an image (from which it does not differ as to the stuff) which is a copy of the original sensation. When a sensation is followed by an image which is a 'copy' of it, the image constitutes the consciousness of the sensation. 'The mere existence of the image, however, does not mean consciousness of the sensation; the further element of belief is to be added. Along with the existence of the image, there is the accompanying belief which makes us feel that the image is the sign of something other than itself and refers to the original sensation. The belief must always constitute objective reference past or present. An image together with the belief con-

stitutes the consciousness of the prototype of the image. We express the consciousness of sensation in such words as 'this occurred', and not in the traditional way as 'I am aware of this occurrence', since there is no act in this apprehension. The content here is the image which is believed, and the objective is the original sensation to which the content refers. (*ibid.*, pp. 288-92)

2. *Perception*.—A judgment of perception, according to Russell, consists of 'a core of sensation' together with mnemonic phenomena such as the results of past experience, images and also an accompanying belief in the existence of the object. In perceptual consciousness the belief refers not so much to any present existence, as to something future. It is always in the nature of an expectation, and the basis for such peculiarity is to be sought in the mnemonic phenomena which it involves. When we see an object we expect certain sensations to result if we proceed to touch it. Perception consists, therefore, of 'a present sensation together with expectations of future sensations'. But expectations are liable to be erroneous, since they are based upon correlations which are usual, but not invariable, as is found in the case of our attempt to touch the reflection in a mirror under the impression that it is real. Similar difficulty also arises in the case of our consciousness of the past objects owing to the fallibility of memory. But Russell contends that it is awkward to think that we can be conscious of objects which do not or did not exist. So he adds another provision in his definition of perception that the beliefs involved in consciousness must be true. (*ibid.*, pp. 290-91)

3. *Imagination*.—Sensations are to be distinguished from images neither by the fact that the former possess a certain characteristic vividness which the latter lack (the criterion of Hume), nor by any difference as to the nature of the ultimate stuff, but simply by the difference of causal laws. While sensations are governed by physical laws and are conditioned by causes which lie external to them, images are always governed by mnemonic laws, i.e. habit and past experience and the conditions for their production as a rule lie within the brain, and so the images are sometimes described as 'centrally excited sensations'. The difference of causal laws alone serves to distinguish images from sensations. Images are essentially private and mental and are thus further distinguished from sensations which are neutral. Besides these there is no intrinsic difference of stuff between them and the images are only copies of sensations.

Now the question is whether there can be any consciousness of images. Russell distinguishes the consciousness of sensations through images from the consciousness of images. We are conscious of a sensation through immediate memory by means of an image which is its prototype. But in consciousness of images we have images of images as distinct from images of sensations which we have in consciousness of sensations. Is consciousness of an image in this sense possible? Russell holds that it is possible, and that there is a way in which its possibility could be explained. Meaning is defined by him by means of association. A word or an image means an object when it has the same associations as the object. But this does not mean that the word or the image has all the same associations as the object which it means. It may be that an image has certain associations which its prototype does not possess but which another image of the same prototype may possess. In such a case an image means an image instead of meaning its prototype. Thus an image A may be connected with another similar image B (both the images having the same prototype) by certain associations, but not with its prototype or with other images of the same prototype. It may be that in thinking of the image A we may be led on to the image B, only because these two images are connected by certain associations which may be absent in the case of their prototype, or in the case of similar images of the same prototype. In these cases an image means only an image and we may be said to be conscious of images in the sense in which we distinguished such consciousness from the consciousness of sensations. (*Analysis of Mind*, pp. 290-291)

These considerations suggest that there is no such thing as the stuff of consciousness; neither is consciousness anything like a simple quality, nor does it belong to mind as such as its essence. It is far too complex a thing to be regarded as an essential characteristic of mind, composed as it is of such elements as past habits, images (noetic elements), meaning, belief, etc. Instead of being something fundamental or unique or something unanalyzable, it is a complex of several elements which can be analyzed and noted. In this view of consciousness we note a characteristic difference from that of Alexander. Unlike Russell, Alexander takes consciousness to be something unique, of which the character is revealed only in a special mode of apprehension called 'enjoyment', and cannot be given either by description or analysis which evidently would destroy its real nature. Further, as opposed to

Russell, Alexander regards consciousness as being the essence of mind. He maintains that where there is enjoyment or consciousness there is mind.

Just as consciousness does not constitute the essence of mind so mnemonic phenomena cannot also constitute its essence. The possibility of acting with reference to objects not sensibly present is regarded as due to habit and past experience. But it seems quite probable that this habit is physiological and it is the nerves which acquire experience rather than mind. Similarly a physiological explanation of memory may lead us to the view that memory also cannot be regarded as the essence of mind. A recollection which is aroused by the present event may be described as A. But if the recollected event did not occur as a result of the present event, then the said event would have produced another effect, say B, which would be different from the recollected event A. This difference Russell accounts for 'by the physical effect of the past event on the brain, making it a different instrument from that which would have resulted from a different experience'. Thus he concludes that memory may have a physiological explanation. (*ibid.*, pp. 233-235)

Subjectivity, again, cannot be an essential feature of mental phenomena. It is certainly an essential element in the definition of mind, but it is not alone sufficient to define its nature. We have seen that subjectivity is the characteristic of 'perspectives' or 'biographies', the characteristic of giving the view of the world from a given place. But this feature may be exhibited by a sensitive photographic plate as much as it is evinced by mind.

Now mind involves consciousness and subjectivity as its features but neither of these can be regarded as constituting its essence. In view of the fact that a certain peculiar importance attaches to the problem of belief in Russell's theory of consciousness, it seems to require a separate treatment. It is necessary at the start to point out that Russell's theory of belief contradicts his view that there is no such thing as mental act. In belief Russell discovers a *bona fide* case of mental action. 'Believing,' he says, 'seems the most mental thing we do, the thing most remote from what is done by matter.' (*ibid.*, p. 231) The analysis of belief reveals, according to him, the three elements, namely, the believing (act), what is believed (content), and the objective (object). He further observes most unequivocally that 'the objections to the act (in the case of presentations) are not valid against the believing in the case of beliefs, because

the believing is an actual experienced feeling, not something postulated like the act'. The distinction between believing and what is believed is regarded as fundamental. 'I may believe that Columbus crossed the Atlantic, that all Cretans are liars, . . . ; in all these cases the believing is just the same, and only the contents believed are different. . . . Again, I may remember my breakfast this morning or my lecture last week and in all these cases the feeling of memory-belief is just the same, and only what is remembered differs.' Exactly similar remarks apply to expectations. Reason, memory, and expectation are three different kinds of belief; all three are different from what is believed, and each has a constant character which is independent of what is believed.

Russell considers beliefs to be characterized by truth and falsehood just as words are characterized by meaning. Just as meaning consists in relation to the object meant, so truth and falsehood consist in relation to something that lies outside the belief. What makes a particular belief true or false is described as 'fact'. This 'fact' is called the objective of the belief, and the relation of the belief to its objective is described as 'objective reference of the belief'.

Further, both the believing and what is believed are present occurrences in the believer, whatever may be the objective of the belief. The object of my believing may be an event in the past, but neither the believing, nor what is believed should be confounded with the event. What is believed is the content and is a present occurrence, whereas the event as the objective is distinct therefrom and may be past. The content believed as a present occurrence is related to the objective which may be a past event.

Russell maintains that 'our whole intellectual life consists of beliefs'. Beliefs may occur in perception; and memory, expectation, and assent are specific kinds of beliefs. After rejecting acts of thinking, Russell finds in belief-feeling the real clue to the explanation of such mental phenomena as perception and memory. (Ibid., pp. 231-233)

Let us see how Russell fares in his explanation of memory with this belief-feeling alone and without the assumption of any act of thinking. Memory involves images, but 'it seems far too complex to be explained by images alone. The images of memory are accompanied by the feeling of familiarity which distinguishes true beliefs from false ones. They are further accompanied by a feeling of 'pastness'. Since there is no subject to

experience these feelings, they are spoken of as characters of the image. The first 'leads us to trust our memories', and the second, 'to assign places to them in the time-series'. (Ibid., p. 163)

Besides the familiarity-feeling and the feeling of 'pastness', memory also involves belief. Russell feels that the rejection of the subject or act makes here a complicated theory necessary. In considering the case of a memory in terms of images it is found that when such a memory occurs there is a belief which is tantamount to the judgement 'This has existed before' or 'This has occurred before'. The 'this' may refer indifferently to the memory-image or to its prototype in sensation. The present occurrence consists of the memory-image together with the familiarity-feeling and the feeling of pastness. But besides these there is also the feeling of reality and there is a relation between the image and the feeling of reality which may be expressed by saying that the feeling refers to the image. It should be noted, however, that this feeling, unlike the feeling of familiarity or the feeling of pastness, is not the character of the image, but is a separate factor in the complex. Finally, there is the belief-feeling based on familiarity and pastness, and it is this feeling which is the distinctive characteristic of memory. The past tense, lit. 'This existed', or, 'This occurred', is expressive of the memory belief-feeling. Of the three kinds of belief-feeling (others are expectation and bare assent) memory feeling is one. (Cf. *Analysis of Mind*, Lecture IX) Such, in short, is Russell's explanation of memory.

From the account we have given of his theory of consciousness, it would appear that it cannot be considered in any way as an improvement upon that of Alexander. Russell, as he himself admits, is profoundly influenced by the American realists and the behaviourists, and following in their wake, has rejected the notion of mental acts. He is perfectly aware of the fact that such rejection has in many cases made a somewhat complicated theory necessary. Consciousness consists simply of content and object, and in the relation which is established between them many other ingredients such as images, meaning, and belief enter. It thus appears as a complex built up out of these mental particulars and can, therefore, by no means be regarded as fundamental or essential to mind.

Before proceeding further we may point out an evident inconsistency in Russell's analysis. Firstly, he maintains that there is no act involved in thinking; such an

act is neither observable, nor deducible from what is observed. It is, therefore, 'mythical'. Secondly, in belief there is an immediately observable, and not merely postulated quasi-act which, on analysis, turns out to be a sort of feeling, a belief-feeling, the 'believing'. Thirdly, beliefs are constituent elements of cognitive experiences; 'the whole intellectual life consists of beliefs'. These three propositions, viewed in relation to each other, seem contradictory. It would appear as if it were being maintained in the same breath that there is no act involved in thinking, and there is an act involved in it. For beliefs are involved in all cognitive processes, and in the case of beliefs, 'believing' as something separable from the content, is observably present; nevertheless an act of thinking should be dismissed as a purely gratuitous assumption.

If we inquire into the grounds for what looks like a plain contradiction, we shall find probably that these lie mainly in Russell's method of approach. The initial assumption, involved in his analysis, is that mind is little more than an aggregate of disparate types of mental phenomena; the mind, in short, is a collection of experiences and not a system of experience. In treating mind as a complex aggregate of particulars, and reducing the types of mental phenomena to as few basal types as possible, Russell seems to think that each type can be separated from the others and can be adequately described when taken thus by itself out of all relation to the other types. Thus perception, memory, desire, meaning, images, beliefs, and thinking are all conceived as sundered from each other and thoroughly intelligible in their abstract isolation. The different mental phenomena are thought of as static and capable of being sorted out as individual and disparate entities or atoms. But if we look closely into this analysis of the different mental phenomena, we find that Russell is unable to keep them in absolute isolation from each other. Memory enters into perceptual experience; meanings, ideas, and words refuse to remain separate and distinct, and belief and thought merge irresistibly into each other. For the sake of analysis the different types of mental phenomena may be viewed as distinct from each other, but this characteristic can never be regarded in any sense as essential or ultimate. In actual experience, the different mental phenomena are found to interpenetrate. Russell seems to have overlooked this character of mental phenomena, and this probably has led him to separate thinking from believing. Taken as disparate entities, thinking and believing are such that no

assertion about the one has any relevancy to the other; even the most fundamental characteristic of the one may be denied of the other without the slightest inconsistency. But thinking and believing cannot be after all taken separately. Viewed in their concreteness, these processes seem to merge into each other, and it is found that thinking is a way of believing and believing is a way of thinking, and what is fundamental to the one cannot be denied of the other without contradiction. Mind is essentially a system and its several experiences are so intertwined that they can hardly be separately described.

Russell finds that mental action is neither empirically discoverable nor theoretically justifiable. Firstly, what does he mean by the term 'empirically discoverable'? If he means that an act of thinking must be given as an object or presentation, as in sensuous experience, then certainly his contention is sound, because an act of thinking cannot be known in this way. But there is another way,—a different mode of experience which may give us a knowledge of mental action. Alexander's distinction between 'enjoyment' and 'contemplation' is that other way. Mental action may not be contemplated as an object, but may be given in enjoyment or in a sort of immediate experience different from the type of experience which involves the duality of the subject and object. The mental act is enjoyed in the contemplation of the non-mental reality. It is never given as a presentation. If the term 'empirical', used by Russell, is not to be taken in a narrow sense implying only sensuous experience, then there is no reason why we should deny the knowability of mental action. 'Enjoyment' is, indeed, a type of experience, but different from the type manifested in the experience of sensible appearances.

Secondly, Russell does not feel any theoretical necessity to retain mental acts. We have seen already that he himself admits the difficulty of explaining memory-knowledge without the assumption of them and maintains that their rejection makes a complicated theory necessary. What he admits only in the case of memory seems to apply to all conscious experiences without exception. The distinction between the 'ing' and the 'ed' (to borrow Alexander's expression), or between the act and the object,—awareness and the object of awareness, is vital to all conscious experiences; and Russell, who recognised this distinction in his earlier theory—see *Problems of Philosophy*, pp. 65-66), in rejecting this distinction, has rendered his task really difficult. It would appear that the mere content and

the object, together with the elements of belief-feeling and meaning, are hardly sufficient to explain the nature of a conscious experience. An example will make the point clear. Following Russell, let us analyse the perception of a tree. Firstly, in looking at the tree from a distance, we observe the shape and size of the tree, the greenness of its leaves and such other qualities as can be apprehended by means of sight. These impressions, which we have of the distant tree, constitute the sensations. But perception is not merely sensation. Besides the core of sensation, it involves also what Russell calls 'mnemonic phenomena'. The actual sensations of the tree are interpermeated by memories of past experiences and thus we are of necessity led to transcend the present sensational data and expect future sensations. (Our sight of the tree from a distance gives us only sensations of its size and its colour qualities. But its tactual and other qualities, and the recognition of these sensations, as having no essentially objective reference, are due to the interpenetration of past experiences with the present sensations, and also to an element of belief which assures us that the sensational data refer to a real object. The most important point to note, in this analysis, is the fact of the recognition of the tree as a tree. Suppose the whole process of perception as explained by Russell is complete; can we say even then that we have perceived the tree? There are sensations of the tree; the sensations are modified by memory; there is the accompanying belief that the sensations as modified by memory mean a real object. Now what is this belief-feeling which seems to be the most important factor in our recognition of the object as a tree? As a feeling are we to identify it with the sensations? If it is a sensation obviously it cannot mean the object and cannot lead us to it. This feeling then must be an act of mind, it is not belief merely, but believing which enables us to refer the content to the object. But the mere act of believing as such cannot make possible the recognition of the tree. It must be the act of some person and must have an essential reference to the self. That the object is the tree must be believed by some mind as a belief of its own; otherwise there is no meaning in saying that the tree is perceived and is recognised as a tree. For Russell, as he himself admits, perception means only the bare occurrence of an event. It may be expressed, in the case of the perception of a tree, by saying that 'the perception of the tree has occurred', and not that 'I perceive the tree'. But this sort of explanation is hardly a true description of what actually

takes place. The bare occurrence of an event, without any observer or knower to perceive it, can hardly constitute a perception of the event. There is the belief that the sensations refer to the object. But who believes the occurrence to have an objective reference? There must be some believer, as the author of the act of believing, and it is the believer or the self that refers the content of his perception to the object. Without the assumption of the self, the so-called perceptions seem to float in the air, as detached and isolated entities, and perception in the true sense of the term becomes unmeaning.

Throughout the preceding, it has been our endeavour to combat the denial of the legitimate distinction between act and object, as vital elements of any conscious experience, and to show further that besides the bare act there is the individual self as the subject of the act. Without the conception of the subject, no conscious experience can be explained. Russell is right in denying the content in the case of sensation, but seems to be wrong in making it entirely objective. In sensation, also, the distinction between act and object is essential. It cannot be explained as a mode of consciousness unless the duality of the act of sensing and the object sensed, as essential to sensation, is recognized. So far as the explanation of sensation is concerned, Russell agrees with the American realists, and is involved in the same difficulties as beset them. Sensation does not belong to the object. As a mode of consciousness, it is identical with the act of sensing, and it arises as a result of the response of the living organism to certain aspects of the objective environment. Even in sensory consciousness, the duality of the act of sensing and the object sensed is present.

If the assumption of the presence of an act is vital to all sensory and perceptive experience, is it any way less so in the case of other conscious experiences, such as imagination and memory? Russell himself feels the necessity of introducing a mental act (believing) in his explanation of memory-knowledge, although he cannot do so consistently with his earlier denial of the act. Besides, there is another important consideration which demands the recognition of the validity of mental action. How is it possible to explain the unity of conscious life without the activity of thought? Russell seeks to reduce the different types of mental phenomena, such as perception, memory, thought, etc., to simple constituents (sense-particulars) and explain their unity and continuity by a special law of causation (mnemonic causality). The mnemonic

causation of Russell may be said to play for him the same part that association played for the empiricists. Thus he says that it is mnemonic phenomena which give the continuity of a 'person' or 'mind'; just as it was 'inseparable association' which supplied the bonds of a 'self' for the empiricists. The function, which the law of association performed for Mill and other thinkers of his school, is performed by mnemonic causation for Russell. The aims of the two writers, however, are different. Mill did not aspire to prove that the ultimate constituents of mental complexes (sensations) were aeternal, common to physics and psychology. But, apart from this difference, their methods are similar. Mind is reduced to a complex of particulars which are held together as an aggregate by the bond of mnemonic causation. But is mind really an aggregate of such sense-particulars? Does such a conception give a true description of mind? Is it possible to dissolve mind into a plurality of such particulars and then try to restore its unity by the extraneous bonds of mnemonic causality? Mind, in its concreteness, is not an aggregate of particulars linked with each other by certain extrinsic relations. It is essentially a system, and as such its several contents cannot be rendered from each other without detriment to their intrinsic nature. By analysis, mind is sought to be reduced to a plurality of sense-particulars, and then by a sort of artificial aggregation its unity is sought to be restored. But this process does not give us the essential characteristic of mind as a system. The several experiences of mind are found to interpenetrate and merge into each other. They are not connected by any external relation. The unifying principle is not an extraneous agency which is somehow superimposed upon them; it is intrinsic to each and every mental content, and that is why the several mental experiences form a system. To explain this systematic character of our mental experiences we are compelled to postulate mental acts.

It would thus appear that Russell is not justified in rejecting the conception of a mental act, or a conscious subject, simply because it is not given as in sensation, or cannot be empirically observed as a presentation. There are others who contend that they have some sort of immediate consciousness of the subject, and that it is revealed to one's knowledge in a way different from that in which a sensible object is apprehended. For these thinkers, the conception of the subject is not a fictitious hypothesis, postulated merely to simplify a theory of knowledge, but something for the existence of which they have independent evidence.

Taking all these facts into consideration, it seems better to admit the existence of the subject when its rejection only causes needless multiplication of difficulties.

In Russell's analysis of consciousness, belief plays by far the most important part. But he seems very uncertain about the nature of this belief. He sometimes speaks of it as a sensation, as when he tells us that there are three kinds of belief, such as memory, expectation, and assent, and that each of these is 'presumably a complex sensation demanding analysis'; but more often he describes it as a feeling. Yet he confesses his inability to analyze it. If he is unable to do so, what justification is there for calling it a sensation, or a feeling, and getting it to fit into the general formula? If belief is a sensation, it must be something essentially different from the sensation of blue or similar sensations; otherwise it seems beyond the range of possibility that it should play the important part it does in knowledge. The essential characteristic of belief is that it is directed towards something and this character no other sensation seems to possess. If it is not possible to reduce belief to a mere sensation, there is hardly any way left for the reduction of all mental contents to sensations and images. Nor does Russell fare any better when he speaks of belief as a feeling. It is maintained that 'feelings are intrinsic qualities of mental occurrences'. Now, if belief as a feeling is regarded as a quality of such mental occurrences as some sensations or images, then the question may be asked of which sensation or image in the belief-complex is it a quality? It cannot be a quality of any of the images of the content, because it is always directed towards the whole content. Are we to regard it as a quality of the organic sensations which form part of the belief-complex? If so, it seems unintelligible how an organic sensation can have a quality which has the peculiar characteristic of being directed towards something. Further, the conception of belief either as a sensation, or as a feeling, seems inconsistent with Russell's conception that it is an act. If it is an act, how can we regard it as a 'complex phenomena consisting of sensations and images variously related'? (*Analysis of Mind*, p. 300) Russell's whole treatment of belief is inadequate. We do not know whether belief is mental, physical, or neutral. If it is regarded as a sensation or a bare quality of sensations, it cannot be thought of as mental. Yet Russell speaks of it as a mental act when he says that 'believing seems the most mental thing we do'. (*Ibid.*, p. 231) His treatment appears, therefore,

full of inconsistencies and we are unable to gather from it any clear notion as to the nature of belief.

It seems that Russell's whole analysis of consciousness is vitiated by the rejection of mental acts and the assumption of a content as the immediate datum through which the object is known. Except sensation, all other forms of consciousness, such as perception and imagination, involve the distinction between the content and the object. Russell clearly distinguishes between the content and the object,—the content is 'what is believed', and the object is the 'fact' or 'objective' to which the content refers. Further, the content is regarded as a psychical existent. 'What I am believing,' says Russell, 'is something now in my mind.' (*ibid.*, p. 233) The content as mental is a present fact, whereas the object may be past. The dualism, exhibited in this analysis of consciousness, is very clear. There is the belief, the content of the belief and the objective or fact to which the content refers. Here, although the belief always refers to the objective, yet the objective is not what is believed; what is believed is the content, and the content as a psychical existent is absolutely distinct from the fact towards which belief is directed. When, for example, I believe a fact such as that 'Caesar crossed the Rubicon', which happened two thousand years ago, am I to think that what I am believing is my present mental content and not the real fact which happened in the past? Is the crossing of the Rubicon by Caesar a fact existing only in my mind and not in the real world? Russell's contention is that the real fact which consists in Caesar's crossing of the Rubicon, is apprehended only through the mediation of the present mental content which is believed to refer to the past fact. But is this really a true description of the facts? When we actually think of the fact (Caesar crossing the Rubicon), we directly refer to it and do not apprehend it through the mediation of a psychical content. If we analyze the nature of the content we find that, as a mental existent, it contains the image of the fact. But, in being conscious of the fact or the objective, the psychical character of the image is not at all apprehended. Its psychical character is completely superseded by its logical significance of reasoning in virtue of which we directly grasp the real. Thus there does not really exist any 'gulf' between the content and the object. Consciousness, being essentially self-transcending, directly apprehends the real, and after all, it is not so complicated a process as Russell thinks it to be. Further, if we still wish to stick to the conception of a content, as a psychical

existent, distinct from the real object, and if we maintain that the knowledge of the real is only representative, then we are once again led to phenomenalism which is the consequence of a thoroughgoing representationalist theory.

Russell maintains that the objective reference is not an essential characteristic of consciousness. It is not necessary that consciousness must always be of something. In the case of pure imagination there is present only the content and no accompanying belief referring to the object. Russell's view seems to be in accord with the commonsense belief, which distinguishes dreams and imaginations from reality, and considers the former as the work of mind and moral, as contrasted with the latter which is real. It is held that in imagination mental occurrences have no reference to objects; they are, as it were, pictures in somebody's mind without counterparts in the real world. This view appears to be false. The imaginary events of a novel are as little events merely in the author's head or the reader's head, as any historical event like the French Revolution. To a child, the events of a fairy tale are as real as the events of ordinary life; to the primitive mind, a myth is a tale of fact as much as a historical or scientific statement is to us. These considerations suggest that whatever the principle of distinction between imaginary and real experience may be, it cannot be that in the one case our ideas have objects and in the other they have not. The objective reference is essential in all forms of conscious experience, however imaginary such experience may be.

There is another point of some importance which deserves our consideration. Russell recognises certain entities, such as organic sense, images, and various feelings, as 'private facts'. He defends introspection on the ground that these 'private facts' are inaccessible to the objective method and since some observable facts (images) are not amenable to the laws of physics, a method other than that pursued by the physical sciences is justifiable. But it appears to us unintelligible how the rejection of the act of thinking is reconcilable with the retention of introspection. What does introspection mean? Is it not a mode of observing and therefore a mode of thinking? If so, how is it possible to retain introspection and deny the existence of mental acts? To be consistent Russell would have to deny introspection like the American realists.

CHAPTER V

Conclusions

Our discussions of the neo-realistic theory of consciousness in the preceding sections have been mainly critical, and this may have created an impression that we are not sufficiently appreciative of the valuable features which such a theory undoubtedly possesses and for which it claims a distinct position in the domain of philosophic thought. The constructive value of the neo-realist's treatment of the problem of consciousness can be ignored only if one's vision is blinded by a certain deep-rooted bias in favour of some other theory, the infallible character of which becomes for him not a matter of reasoned conviction, but of irrational faith. The lack of sympathy and appreciation is born of prejudices and initial prepossessions which always put obstacles in the way of cultivating a genuine philosophic spirit.

It is our purpose in this chapter, firstly, to appraise the elements of constructive value which are to be found in the neo-realist's treatment of the theory of consciousness, and secondly, to suggest a line of approach towards the formulation of a view of consciousness, appropriating the elements of value in the neo-realistic theory and rejecting those which have failed to stand the test of logic and facts. Our task is thus twofold: (1) consideration of the merits of the neo-realistic theory of consciousness; and (2) making suggestions towards the formulation of a theory of consciousness assimilating all that is of permanent value in the neo-realistic doctrine.

For estimating aright the real value of the realist's contribution towards the formulation of a doctrine of consciousness the best way of approach seems to be to set the realist in opposition to the idealist,—to view the emergence of the realistic theory of consciousness from its polemic against idealism, and the various forms of substance-philosophy. Neo-realism originated largely as a protest against idealism and the different forms of substance-philosophy, and was in its results mainly destructive and critical. It has now developed into a constructive philosophical system having some distinctive contributions to offer to the solutions of the problems of knowledge and of reality. It should be noted, however, that the American

realists as a whole, and Russell among the English realists, are as a rule averse to all kinds of system-building in philosophy. They are of opinion that experience does not justify our conception of reality as a completely unified system. It is our ethical or religious bias which is mainly responsible for the view that reality is a perfectly unified whole or that it is tending to the realization of some final good. If we are to believe in the truths of science, we can only assert that the multiplicity of things and events in the universe is capable of being reduced to a few ultimate entities, and the present state of our knowledge does not give us any warrant for holding that the reality is a single unitary system. It is for this reason that the neo-realists generally restrict their enquiry to the solution of certain specific philosophic problems and do not attempt system-making. And further, it is because they do not believe in the unity of the world or that it is a perfect system, that they never hesitate to undertake the consideration of different philosophic problems in complete isolation from each other. They have borrowed this method from the natural sciences where specialisation has contributed immensely to their far-reaching and speedy progress. It is only in Prof. Alexander's monumental work, *Space, Time and Deity*, that we find for the first time among neo-realists an attempt to build a constructive philosophical system, and to explain all the manifold aspects of our experience, not excluding even values and religion, from one definite and fixed point of view. With the publication of this great work, neo-realism can no longer be labelled as merely polemical; its positive contributions are now very varied and of a far-reaching character; and its distinctive position in the history of philosophic systems can no longer be disputed.

If we consider the traditional dualism, as formulated by Descartes, or some form of idealism, such as that formulated by Berkeley, we find that they are characterized by some very vital defects which, however, did not escape the critical gaze of the neo-realists. Confining our attention exclusively to the problems of consciousness, we observe that both the dualists and the idealists are at one in maintaining that consciousness is made of a peculiar stuff or substance, the idealist contending that it is the only stuff whereof everything else in the world is composed, while the dualist postulates alongside of conscious substance a material substance, opposed to the former in all essential attributes. Consciousness is regarded by both the dualist and the idealist as a simple substance which is

further unanalyzable. The neo-realist takes serious exception to this view of consciousness as a substance, simple and unanalyzable. Against the dualistic view the neo-realist urges that mind and matter are not simple substances and they are not the primordial stuffs from which other existents are derived. Descartes, the author of modern dualism, failed to explain by his hypothesis the relation between mind and body. If these two entities are composed of entirely opposed substances, how is it possible to explain the empirical fact of their union? So long as we stick to the view that mind and matter are disparate substances there is, indeed, no solution of the difficulty. The neo-realist contends that Descartes' difficulty arose from his failure to grasp the real nature of mind and matter. The latter are not simple substances at all, but complexes made up of more primitive entities. The realist maintains that the traditional thinkers failed to make use of the only sure instrument of philosophical research, namely, analysis, and thus created these deadlocks and brought the development of philosophic thought to a standstill. They probably underestimated the value of the analytic method, or the potency and the fruitfulness of this method were not apparent to them, or they were too much obsessed by religious considerations or by their respect for such thinkers as Plato and Aristotle and failed to probe deeply into the real nature of mind and took it on trust as it were that it was beyond the reach of analytical method. Although Descartes openly disavowed the authority of tradition, yet it is not improbable that in building his philosophical system he was unconsciously influenced by the Christian and Scholastic conceptions concerning the nature of the soul, and it is this fact which may account for his adherence to the idea of the mind as a substance. The neo-realist thinks that the revival of the method of analysis has led to the discovery of many hidden complexities hitherto unnoticed by philosophers. Mind and matter are now no longer to be thought of as simple substances, but are to be regarded as complexes made up of more primitive entities. The analytic method of the realist is to be credited with the discovery that the difference between mind and matter is not one of substance or of stuff, but is one of relation and organization. There is no doubt as to substance, there is only a duality of organization. Reality in its ultimate nature is neither mind nor matter, but is neutral. The discovery of certain logico-mathematical entities, as neutral between mind and matter and as constituting the ultimate stuff of reality, is

proclaimed by the neo-realist as an achievement of great philosophical importance. The theory of neutral entities distinguishes neo-realism from dualism on the one hand, and idealism and materialism on the other. It is to be noted, however, that the theory of neutral entities is not accepted by all neo-realists. Prof. Alexander, for example, does not regard logico-mathematical entities as the ultimate stuff of reality. For him Space-Time is the matrix of all being, and logico-mathematical entities, such as identity, difference, and number, which are regarded by the American realists as the primordial stuff of all being, are only derivations from Space-Time. Yet although the neo-realists differ from each other as regards the specific character of the ultimate reality, they agree in maintaining that it is neither mind nor matter which can be so regarded. Neo-realism is, therefore, neither dualism, nor idealism, nor is it materialism. It is neutralism so far as its ontological position is concerned. Neutralism certainly emphasises the identity of substance, but it assumes a variety of forms, and, accordingly, it is either monistic or pluralistic. Alexander's position may be described as neutral monism, whereas that of the American realists and Russell as pluralistic neutralism. Some objection may be taken to our describing the view of Alexander as neutral monism, since he himself would repudiate any such description of his doctrine. But our reason for calling his theory 'neutralism' lies in the fact that his ultimate principle, Space-Time, is neither mind nor matter, but something neutral as between these. Further, he is a monist in so far as Space-Time is a single and indivisible stuff of reality. For all realists, therefore, mind is not the ultimate stuff of being, but a secondary and derived reality from some primordial stuff or simpler forms of being: it does not hold a privileged position in the scheme of things. Mind is not composed of any peculiar stuff called conscious substance, but is a complex entity, reducible to more elementary forms of Space-Time, or to simpler forms of logico-mathematical neutral entities. So far as the substance of its being is concerned, mind is not distinguishable from such entities as matter and life. The one distinction which marks it off from matter and life lies in the fact of its complexity of organization, and in its possessing comparatively a greater degree of perfection, being the highest of the empirical existents. Except for its perfection of development, mind does not hold any privileged position in the scheme of reality; it is one among other empirical existents without any prerogatives whatsoever.

We have discussed the ontological neutralism of the neo-realists in its various forms, as formulated by the American and English neo-realists, and have found it unsatisfactory in more ways than one. Despite the defects of the conception, it is not altogether without its redeeming features. Its positive contribution as an ontological theory of reality may be small, and of little importance, and may not even stand the test of logic and facts, yet negatively viewed as a critique of dualism, its value can hardly be overemphasized. The neutralist's reduction of mind and matter to some primitive forms of being, such as certain logico-mathematical neutral entities, may not be a tenable view, yet his insistence on the community of nature between mind and matter, and his rejection of the substance hypothesis, have served to obliterate even the last vestiges of dualism. Neo-realism is, indeed, a powerful critique of dualism.

Besides establishing this monism of primordial stuff against ontological dualism, neo-realism has rendered another very valuable service to philosophy by combating the conception of a mental substance which vitiated not only dualism, but idealism as well. In the systems of Descartes and Locke, mind or soul is conceived as a substance, permanent and immutable amidst its diverse, changing conscious states and processes. The various conscious processes are thought of as undergoing constant changes, whereas the soul, as their unchangeable substratum, holds them in unity. In our immediate experience, we are aware only of the continuous flux of conscious processes, and a knowledge of the soul, their permanent background, remains well-nigh beyond the range of possibility. We have no direct or immediate awareness of the soul, and our apprehension of it is only mediate and inferential. In other words, our knowledge of the soul is not by acquaintance, but by description. Thus the real nature of the soul remains to us a perpetual mystery. We are not sure of its exact character, and all our predictions concerning its nature are bound to be in the highest degree hypothetical, since empirical evidence in support thereof is always unavailing. Locke, a great advocate of this soul-substance theory, frankly confessed his ignorance of the real nature of the soul; and, although believing in its existence, he maintained that it is a conception unintelligible, and for him it was a simple 'I-know-not-what'. The conception of a soul-substance thus came to be regarded by later thinkers with considerable suspicion, until finally it was entirely discarded by

Hume as a thing of little philosophical importance. Consistently with his empirical outlook, Hume could not but abandon the notion of a soul-substance, the conception of an entity lying wholly beyond the range of sensible experience. For Hume, nothing could be regarded as real which was not sensibly given. He accepted, therefore, as real only sensations and ideas, which were immediately given as sensible presentations. It was only the attributes, or the modes of the soul-substance, which were for him real; and the soul, the underlying substratum of these qualities, was regarded as a fiction. From the empirical point of view Hume's contention was thoroughly sound, and a accepted conclusion, concerning not only a knowledge of the soul but also its existence, was the inevitable outcome of such a standpoint.

Thus Hume rejected the conception of a soul-substance and, for a time, it was thought that it could never be revived. Kant, however, in his anxiety to resuscitate metaphysics from the moribund condition to which Hume's scepticism had reduced it, resuscitated the soul-substance. But in its resuscitation the soul underwent a change of form, although it remained as substantial as ever. We find in Kant the resuscitated soul in the garb of a subject. The metaphysical subject still remains a transcendental entity, beyond time and change, but, apart from which, time, change, and succession become meaningless conceptions. It is conceived as a non-temporal and timeless entity, without which, however, no temporal succession of the different items of consciousness and their unity and continuity would be possible. This conception of a transcendental metaphysical subject was further perfected and developed by post-Kantian thinkers, until it reached its culmination in the conception of the Hegelian Absolute.

A powerful campaign against the idealist's conception of a spiritual subject was launched by William James. In an article, entitled 'Does Consciousness Exist?' James emphatically denies the existence of any such entity as the soul-substances of the older metaphysicians. In tracing the history of the conception of soul-substance, he points out that in course of time the conception of the soul gave place to that of the transcendental ego. And this transcendental ego in the hands of such writers as Schopenhauer, Nietzsche, and Münsterberg, 'attenuates itself to a thoroughly ghostly condition, being only a name for the fact that "the content of experience is known"'. 'It loses personal form and activity.' James maintained that when the soul 'has evaporated to this state of pure

diaphaneity', it is 'on the point of disappearing altogether'. 'It is the name of a non-entity and has no right to a place among first principles.' Thus James denied the conception of a soul-substance. This denial did not, however, mean for him a denial of the existence of mind altogether. What he really wanted to deny was the conception of mind as a spiritual substance, endowed with some peculiar stuff or quality of being. Mind was regarded by the idealistic thinkers generally as an entity invested with some peculiar quality of being called 'conscious quality'. As against this conception, James formulated his doctrine of Pure Experience, which sought to annul the intrinsic distinction between mind and matter. He maintained that there is only one primal stuff or material in the world, a stuff of which everything is composed, and that is Pure Experience. Mind and matter are not composed of peculiar stuffs or substances, but they are different patterns or arrangements into which the portions of Pure Experience enter. Mind is not, therefore, a substance, but a peculiar type of relation. Further, in considering Kant's conception of a metaphysical subject, James does not find any evidence, either theoretical or empirical, to believe in its existence. There is no such entity as a self-conscious spiritual subject, or an 'I think', accompanying the various determinations of consciousness and contributing to their unity and continuity. Introspective analysis fails to discover anything like the spiritual activity of the mind, so much stressed by the idealist thinkers. James maintains that in trying to introspect mental activity, what he 'feels distinctly' is 'some bodily process, for the most part taking place within the head'. The only activity that he is capable of discovering is 'composed of sensations of bodily exertion and strain, or of feelings of the tendency, the obstacle, the will, the strain, the triumph or the passive giving up'. 'It would follow that our entire feeling of spiritual activity, or what commonly passes by that name, is really a feeling of bodily activities whose exact nature is by most men overlooked.' (James, *A Pluralistic Universe*, pp. 378, 380; *Principles of Psychology*, I, pp. 300-302) Thus James not only denies the existence of a mental substance, but even goes to the length of denying the activity of mind, and identifies it with bodily action. He does not believe in the reality of a spiritual subject or a transcendental ego, and for him the physical body takes the place of the metaphysical subject. The body is the 'centre, centre of vision, centre of action, centre of interest The body is the storm centre,

the origin of co-ordinates, the constant place of stress in all that experience-train. Everything circles round it, and is felt from its point of view. The word "I", then, is primarily a noun of position, just like "this" and "here". Activities attached to this position have pre-rogative emphasis The "my" of them is the emphasis, the feeling of perspective-interest in which they are dyed.' (*Pluralistic Universe*, p. 380 note.) This passage clearly shows that James not only denies the entitative character of the self or the metaphysical subject, inasmuch as he regards the 'I' as merely a 'noun of position', but also rejects the conception of mental act and identifies it with bodily action.

The American realists were profoundly influenced by these speculations of William James concerning the nature of mind. The theory of Pure Experience gave rise to the doctrine of Neutral Stuff, and the identity of mental and bodily action, as the necessary outcome of the rejection of spiritual character of mind, was unreservedly accepted by the neo-realists. Their acceptance of this doctrine led the American neo-realists to formulate their cross-section theory of consciousness. If there is nothing spiritual about consciousness, and if it is of the same stuff as the physical objects, the dualistic hypothesis falls to the ground. Consciousness is no longer an entity, a substance, but is the behaviour of the physical organism in relation to certain aspects of the objective environment. It becomes a portion, or cross-section of the environment, responded to by the nervous system. There is nothing subjective or spiritual about it, and it is brought down to the level of physical objects. Consciousness, as a cross-section of reality, is entirely objective in character, and is as much open to general observation as any physical object. This is how the gradual transformation of the concept of consciousness has taken place. The substance conception of the soul gives place to the conception of a spiritual subject in Kant. But even this disjunction between the subject and the object is denied by William James. For him the duality between the subject and the object is likewise not ultimate. He holds that those who still cling to the conception of a conscious spiritual subject, were clinging to a mere echo, the faint rumour left behind by the disappearing 'soul' upon the air of philosophy. Consciousness is not an entity, but a function, an aspect of pure experience, in which the mental operation is called thought, and the physical operation, the thing. From James's denial of the entitative character of consciousness, we may

pass to the American realists' formulation of consciousness as a cross-section of the objective environment.

The English neo-realists take up a more reasonable view concerning the nature of mind. Broad, Moore, Davies Hicks, Laird, and Alexander agree in recognizing the reality of a mental act as distinguished from merely neural response. They admit the distinctive characteristic of consciousness as something essentially subjective, which can be given to us either in introspection, or in some kind of immediate experience, such as is designated 'enjoyment' by Alexander. Unlike the American realists, they never bring consciousness down to the level of physical objects, but admit its essential distinction therefrom. They recognize the dynamic character of mind, but they never lose sight of the fact that it is incapable of being equated with the physical response, from which its intrinsic distinction should be clearly brought out. Prof. Alexander identifies consciousness, or mental activity, with creation, and thus recognizes its essentially active character. His view seems to us to be thoroughly sound, in so far as it emphasizes the dynamic character of mind, and at the same time it differs from the American realists' conception of it as a cross-section of the environment defined by the neural response. The objective view of mind is rejected by the English realists for whom mind is subjective. Thus the English realists steer clear of the extremes of the cross-section theory in admitting the subjective and spiritual character of mind, and also of the traditional substance theory in admitting its dynamic character.

Besides their attack upon ontological dualism and the substance conception of mind, the neo-realists have rendered another very valuable service to philosophy by their rejection of epistemological dualism. The theory, traditionally known as representationism, advocated this epistemological dualism. Locke was a great champion of the representationist theory of knowledge. For him all forms of conscious experience were of a mediate character. Our consciousness of reality is never direct and immediate, but is always mediated by the images or representations which are copies of reality. Consciousness involves three essential elements, namely, a mental act, an idea, and an object. The object, or reality, is never given to immediate experience, but is apprehended always through the medium of images or ideas. The idea, or the image, is described as the content coming in between the mental act and the real object. The three elements of conscious experience are involved in all forms of consciousness, such as perception,

imagination, etc. So, epistemologically, the representationist theory of cognition created, as it were, a gulf between the mind on the one hand, and the real object on the other. There is hardly any passage from the idea, or content, to the real object. The neo-realists rejected the representationist theory of consciousness on the ground that it was inconsistent with the actual facts of experience, and that it logically led to scepticism rendering all knowledge of reality impossible. Firstly, in actual perceptual experience, or even in imagination, we are never conscious, first, of the content or the representation, and, then, of the real object through the mediation of the content. (Our consciousness in all such cases is direct and immediate. The real object literally enters into the mind and is directly apprehended by us without the interposition of any *tertium quid*. This is a fact testified by our actual experience. Secondly, the philosophical objection to the theory of representation is that it leads to a sceptical conclusion. If we are immediately aware only of the content and not of the object, how is it possible for us to ascertain the real character of the latter? Are we justified in attributing any predicate to reality with any amount of certainty? We apprehend directly only ideas; we know what they are. But we do not know the real object since we have no direct access to it. Further, we have no means of comparing the real object with its copy given in direct experience, and of judging how far the copy is a faithful representation of the original. Thus we are led to draw a distinction between appearance and reality, and phenomenalism is the inevitable consequence of such a distinction.

The neo-realists reject this representationist theory as unsatisfactory, and emphasize the direct and immediate character of all modes of our cognition of reality. And we shall see that in this view the neo-realists seem to be in the right. He maintains that all forms of conscious experience, such as sensation, perception, imagination, thought, etc., are direct and immediate. Be it perception or imagination, we always cognize reality immediately without the interposition of a *tertium quid*. It is the reality itself and not its copy which presents itself to us in our conscious experience. This emphasis upon the directness of conscious experience seems to be faithful to the facts of experience and its other virtue lies in avoiding the sceptical conclusion to which representationism leads.

In this connection, one fundamental difference between the points of view of the English and American realists should be clearly recognized. The American realists

ignore the distinction between mental act and object as basal to all forms of conscious experience, and reduce consciousness to the level of an object. For them, consciousness is essentially objective in character, and there is nothing inward and subjective about it. It seems to us, however, that the American realists are wrong, in so far as they repudiate the distinction between act and object as basal elements of conscious experience. The English realists, with the only exception of Bertrand Russell, recognize the validity of the distinction between subject and object as fundamental to consciousness. Like the American realists they never regard consciousness as a transaction between two physical entities,—the physical response of the nervous system, on the one hand, and the objective physical environment, on the other. They maintain that for the possibility of conscious experience at least one term of the relation must be essentially mental in character, and that it is impossible to regard consciousness as identical with object. The essential nature of mind or consciousness is subjective, and it can never be given to general observation. Consciousness is essentially activity, and such activity is never physical, but is intrinsically distinct therefrom. Prof. Alexander, in his distinction between 'enjoyment' and 'contemplation', recognizes the validity of the distinction between act and object, or what he characteristically describes as the distinction between the 'ing' and the 'ed', as basal to all forms of conscious experience. The position of Bertrand Russell, however, is distinct both from the American and the other English realists. In common with the American realists, he repudiates the conception of mental acts, but he does not identify consciousness with mere object. He reintroduces content, and regards consciousness as a relation between the content and the object. We have discussed his position and have found it unsatisfactory, in so far as he denies the being of mental acts and introduces a *tertium quid* in the form of a content. Prof. Alexander's position appears to us to be more satisfactory, and his view is shared by other English realists. If the content is regarded as an entity distinct from the object, and if, accordingly, it is maintained that the object is never directly revealed to consciousness, but is always given through the medium of content, then once again we are led to a sort of phenomenalism, and knowledge of reality becomes impossible. This conclusion seems inevitable if content is recognized as an entity separate from the object. Further, it is impossible to annul the fundamental distinction between mental act and object without

contradicting the facts of experience. It is more reasonable to admit, with Prof. Alexander, the valid distinction between act and object, as fundamental to consciousness. This position avoids, on the one hand, the gulf of dualism created by the representationalist theory of cognition, and escapes, on the other, the difficulties incidental to the cross-action theory of the identification of consciousness with the object; and, at the same time, it emphasizes the direct and immediate character of all forms of conscious experience.

We have discussed in the previous chapters the various theories concerning the emergence of mind. In considering these theories, we noted one important fact—that none of them regard mind as the basic stuff of reality. On the contrary, it is conceived as being derived from more fundamental types of entities, which may be either logico-mathematical concepts, as Holt maintains, or sense-particulars, as defined by Russell, or Space-Time, as held by Alexander. Although forced by the logic of their theory to regard mind as a thing among other things, and denying its central position in the scheme of reality, the neo-realists yet attempt to explain the intrinsic character of mind as distinct from the lower orders of existents, such as, matter and life. The conception of emergence is based upon the results of the recent investigations of the science of biology, according to which life cannot be interpreted by mechanical conceptions, since it reveals a certain uniqueness and novelty which require more adequate categories for their interpretation. The value of the theory of emergence becomes manifest when it is contrasted with the mechanical theory of evolution. According to the latter theory, mind was regarded only as a by-product or mere epiphenomenon of matter. Mind was, therefore, a useless appendage to matter, that had no existence in its own right, as an independent reality. In combating a conception of evolution according to which not only mind but life also is reduced to this inferior status in the scheme of things, and according to which the different orders of reality are reduced to the dead level of uniformity, the neo-realists have done, indeed, a distinctive service to philosophic thought.

In discussing Holt's theory we found that he sought to deduce mind from the central concepts which are substantent universals. In their essential nature these are abstract qualityless universals. It is from such entities that mind as a qualified, particular existent is sought to be deduced. We considered the difficulties of this logical deduction and pointed out that it is impossible to deduce

from such abstract, timeless universals, the various concrete existents which are temporal and particular. How do the universals which are abstract become individuated and concretized? We tried to indicate that Alexander's theory in this connection stands on surer grounds, since the Space-Time stuff from which he seeks to show the emergence of mind is motion itself. Thus he is not confronted with the difficulty which the theory of logical deduction involves. We agree with Alexander in so far as he emphasizes the novelty of mind as an emergent quality which supervenes upon life at a critical stage in the evolutionary process. We indicated our difference from him on a vital point when he asserts that mind is capable of being reduced to Space-Time and is completely explicable in terms of this primal stuff. We saw that in this respect, his theory agrees with that of Helt, for whom also mind is ultimately reducible to neutral concepts. But is not the assumption that mind is a reducible characteristic incompatible with its character as an emergent novelty? If mind is an 'epigenesis', or a case of creative synthesis, then its newness or unique features seem hardly capable of being resolved into more primitive terms. We found it, therefore, reasonable to maintain that in any true explanation of the nature of evolutionary process it is neither enough to emphasize the qualitative and intrinsic differences marking its different levels and stages, nor is it sufficient to stress only the aspect of continuity exhibited by the process in its transition from one stage to the other. Both the aspect of continuity and the aspect of difference are to be noted. The fact of the substantial identity of the different levels should not be so stressed as to annul the qualitative and unique differences intrinsic to different levels, nor should the differences be so magnified as to obliterate the essentially identical character of the different levels. It is only on these assumptions that the fact of continuity is compatible with the recognition of unique differences.

It seems to us that the attempt of the neo-realists to reduce the different orders of reality to one primal, and therefore, to one kind of stuff is inspired by their preference for scientific method which they entertain in common with the materialists, although strongly disapproving the theory of evolution advocated by the latter. Science always insists upon the interpretation of a thing by referring to its genesis or antecedent conditions. It assumes that the complete explanation of an entity lies in tracing it to its origin. If evolution be a really creative process,

and if time and change are to be taken as real and effective determinants of the evolutionary course, then it seems impossible to equate the final stages of the process with the earlier ones. Mind must be regarded as the highest product of the evolutionary process, and be thought to form the acme of the whole process. Coming as it does at the final stage of the process of evolution, mind certainly contains something more, some novelty which must have been absent, in the earlier stages. So it seems that the interpretation of mind by the neo-realists falls just to that extent to which it resorts to certain primitive or original entities for its final explanation.

In considering the general character of mind or consciousness the American realists came to the conclusion that it is a certain portion of the environment defined by the specific response of the nervous system, or selected by the interested behaviour of the organism. Thus mind as a whole was sought to be identified with the field of objects to which the nervous system responds. It thus became clear that, according to the American neo-realists, mind is essentially objective in character, and, being a portion of the surrounding environment, it is amenable to general observation. We referred to the criticism of this view by Prof. Alexander who contends that if mind be interpreted in this objectivistic manner cognition becomes impossible. Instead of identifying mind with the field of objects Alexander would rather identify it with the neural response. Mind is not the group of objects illuminated by the searchlight of behaviour or specific response, but is the searchlight itself. Mind is essentially the activity exercised by the organism in the apprehension of objects. But this activity is not merely objective behaviour or physical response, but is essentially subjective and can be given only in a subjective mode of experience called 'enjoyment'. From the external or objective point of view of course there is no distinction between the neural process and the mental process. The two processes are neither opposed to each other, nor are they parallel movements. They are one and the same. It is only when the neural process is enjoyed from within that it is experienced as mental activity, and when contemplated from without, that it appears as neural or physical.

We agree with Alexander in thinking that the mind is essentially activity, a power, and that it is in evolution a new power and a new capacity, crowning the whole evolutionary movement. In mind, nature reaches a higher level, and issues in a new reality in the description of which

a new set of terms is necessary. Not only has the mind the power of envisaging the future, and of controlling the present to realize the future, but it surveys and criticizes the whole world process, including its own self. It not only studies itself, but it has power over itself, self-control and self-direction lying within its scope. The theory of emergence advocated by Alexander rightly emphasizes that the course of evolutionary process displays a series of levels; and, creative synthesis being at work all along the line in evolution, novelties appear at each new level. Just as atoms are combined into molecules not additively, but organically, giving rise to new properties which could not be theoretically inferred from the properties of atoms, and molecules again combine into living cells, in which emerge the new and wonderful properties of growth and reproduction, so we find that mind emerges from the organization of vital processes. In this way nature rises to a new level, to the realm of the psychical, to the realm of mind. The psychical cannot be identical with the neural processes. They are new processes and have their own distinctive subject-matter and their own laws. It appears to us that from the standpoint of evolution, mind may be regarded as an achievement, a consummation which has been progressively realized. The processes of mind are to be regarded as real, and they appear as new and distinct powers and capacities, the power of intelligent and adaptive behaviour, of creative work and of aesthetic appreciation. Thus the theory of emergence reveals to us the truth of the utterance of Kierkegaard that the universe is 'the vale of soul-making'.

We have seen that the American realist regards mind as the total situation which comprises the specific response or the interested behaviour of the organism to some aspects of the objective environment. The activity of the mind is sought to be identified with bodily action, which is specific response or behaviour. Mental act, thus identified with the behaviour of the neural organism, is essentially objective and open to general observation. If the distinction between mental and bodily action is thus taken to be annulled there arise certain difficulties which cannot be easily solved. In the first place, the identification of mental action with objective behaviour seems to render any satisfactory account of conscious experience impossible. It is, indeed, true that for the possibility of consciousness it is necessary that the organism, as a selective instrument, should respond to features of the environment (this is, however, particularly true in the case of sensation

and perception), but this does not mean that consciousness is to be identified with these physical responses of the organism. Consciousness is no doubt an experience which we feel and, as such, subjective and mental. It certainly presupposes reactions which are physical, but it is not in any sense identical therewith. Mere physiological response as such, without mental act, cannot constitute consciousness of objects. This fact is rightly emphasized by Alexander when he asserts that in any conscious experience one of the terms of relationship at least must be mental. His contention is that conscious experience involves the duality of subject and object,—mental act or awareness and an object of awareness. To emphasize the fact that consciousness is neither identical with physical responses nor with the objects defined by such responses, but is essentially an experience of the mind, is not at all to deny its objective character, or to say that we are confined to our subjective states merely, and can have no knowledge of objects transcending them. If it is realized that consciousness in its essential nature is self-transcending, and that it does not terminate in the felt subjective experiences merely but grasps objects existing independently of it, then it seems that the emphasis on its subjective character is not to be regarded as inconsistent with its objectivity.

In the second place, without the conception of mental act as subjective, as distinct from the physical response of the organism which is objective, it seems difficult to explain either the distinction between illusory and veridical perceptions or the distinction between truth and error. If the distinction between the subjective and the objective is annulled, and it is maintained that mind is nothing but the collection of objects defined by the physical response of the neural organism, then illusion and veridical perception, truth and error,—all equally fall on the objective side, and we have hardly any means to distinguish between them and to recognize which is illusory and which is real, which is true and which is false. They all become equally true and real for us, and their essential distinction is obliterated. It seems, therefore, that without recognition of the distinction between the subjective and the objective, between the inward and the outward, no satisfactory account of these distinctions can be given.

It seems to us that the duality of subject and object is basic in all forms of conscious experience. In the neo-realist's analysis of the nature of consciousness we have noticed three different views. While the American

realists generally regard consciousness as identical with object, and reject the conceptions of content and mental act. Russell, among the English realists, rejects the notion of mental acts as fictitious, and retains object only in the case of sensation, but thinks it necessary to introduce the notion of content in the explanation of other forms of consciousness. Alexander, again, differs from both these conceptions, and thinks that consciousness involves only two elements, the mental act and the object. Both Alexander and the American realists, however, agree in maintaining, as against the representationists, that all forms of conscious experience are direct and immediate and not mediate and representative. The assertion of the direct nature of conscious experience is, as we have noted, a distinct contribution of the neo-realists to philosophic thought. The conception is a challenge to subjectivism and its ally, phenomenalism. We accept the conception and feel that its application helps us to get rid of all forms of epistemological dualism which prevent a direct access to the real object.

Let us now consider the different forms of cognition in order to determine how far and in what sense the conception of directness is applicable to them, keeping always in view the interpretation given to them by the neo-realists.

1. SENSATION AND PERCEPTION

In conformity with their fundamental position, the neo-realists refuse to believe that sense, or percept, are existentially distinct from the objects. They do not think that sense and percept are psychical existents, as distinct from objects which are physical. They assert, therefore, as against representationists, that sense and percept are fragments or selections from the physical object. There is of course a difference of opinion as to how this selection is made. Holt and Perry among the American realists maintain that the selection is made by the specific response of the nervous system or the interested behaviour of the physical organism, whereas Alexander contends that it is due to the activity of the mind which is of the nature of conation. Though all realists, with the exception of Bertrand Russell, are agreed in asserting the numerical identity of sense and percept with their objects, yet they differ as to the way in which sense and percept are selected from the objects. According to Holt sensation and perception arise when the neural system specifically responds to certain features of the objective

environment. But since he does not recognize the existence of mental act as distinct from physical response, he identifies sensation and perception with the selected portions of the environment defined by neural response. Thus sensation and perception are the individual members of the 'cross-section' which, as a whole, is mind or consciousness. The only distinction between them is that while sensation consists of more or less unrelated elements, perception is more organized, systematic, and logically coherent. In thus defining the nature of sensation and perception as identical with their objects and in rejecting the conception of mental acts, such as sensing or perceiving, involved in the occurrence of sensation and perception, Holt has clearly formulated a radically objective theory in which the necessary distinction between the act of sensing or perceiving and the object perceived or sensed, essential to the possibility of either sensory or perceptual consciousness, is clearly obliterated.

Analyzing the nature of sensation it is found that it involves the response of the organism to certain features of the objective environment. The features to which response is made cannot be identified with sensation. As distinct from sensation we are inclined to call those features 'sensum'. The sensum are certainly not mental and thus are not existentially distinct from the objects. They are parts or fragments of the object. But the sensum cannot be identified with the sensation. Sensum are objective, but sensation belongs to the act of sensing. Sensation arises when the neural system responds to features of the objective environment, but it is the consciousness of the response, and is not identical with the objects responded to. Consider the sensation of sound or the sensation of colour. Certain stimulations from the physical world affect particular sense organs, belonging to the conscious living organism, and the latter responds to them. The stimulations are either air vibrations or vibrations of ether, and according as the nervous organism responds to them through its appropriate sense organs there results either the sensation of sound or that of colour. Neither the ethereal vibrations nor the vibrations of air can be identified with either colour or sound as sensations. The sensations of sound or of colour are the consciousness of the response. So that sensation can hardly be identified with the object.

Sensation is the form of consciousness which belongs to any living organism endowed with a nervous system responding to certain features of the environment. It has an objective reference in that the features to which the

response is made are objective. But sensation includes the response of the living organism to features of the environment. It arises in the situation in which the conscious living organism is found to respond to features of the environment. Thus the total situation describing the response of the conscious living organism A to a patch of blue (a feature of the environment) is different from the response of another conscious living organism B to the same patch of blue, and so on. The sensations are, therefore, not only objective and universal, but unique also.

Among the American realists, Holt has simply ignored the unique features of sensation in trying to emphasize its objectivity and universality. Holt is right of course in rejecting the conception of sensation as a mental content distinct from the act of sensing, but he seems to be wrong in identifying sensation with the object. The features of the object responded to by the neural organism constitute the sense or the object of the act of sensing, and the sensation, as we have shown, belongs to the act of sensing and not to the object responded to. In this respect Alexander's view is more helpful. He also rejects any *tertium quid*, but analyzes sensation into the act of sensing the sensum. The sensum is the part of the physical object selected by the act of sensing from the whole, and is thus objective and physical and not subjective and mental. The act of sensing is mental and the sensation which arises as the result of sensing the sensum belongs to the mental act and not to the sensum. Thus sensation is not merely universal in that it refers to the objective sensum, it is also unique in the sense that it is a subjective mental act. The very possibility of memory consciousness implies the distinction between the act of sensing and the object sensed, and the American realists are wrong in annulling this vital distinction, and in regarding sensation as an objective entity.

Perception is a much more complex form of consciousness than sensation. In perception, memory plays an important part. When in perception the conscious living organism responds to features of environment, such response is not as simple as in the case of sensation, but is interpenetrated and interpreted by memories of former responses to similar situations. All living organisms are in a sense modified by their responses, and no subsequent response to a similar situation can, therefore, be precisely the same. This is exhibited in such phenomena as growth and muscular adjustment. But it is only a conscious living organism which is able to utilize the memories of

past responses. It is consciousness which adds this new characteristic, the ability to utilise the results of past responses, a feature which is absent in a merely living organism destitute of consciousness. Perception, thus, may be said to be the response of the conscious living organism to certain features of the environment, when such response is interpenetrated by the memories of former responses. When, for example, a flower is perceived from a distance, the conscious living organism responds not only to its colour but also to its other qualities, such as softness, fragrance, etc. These latter qualities are not actually sensed as the former, but are apprehended because the present response to the colour of the flower is interpenetrated by the results of the memories of past responses to the same object.

As in the case of sensation, so also in the case of perception, we cannot identify it with the object. It is rather the percept which may be regarded as existentially the same as the object from which it is only a selection. Perception is to be identified with the act of perceiving. Further, like sensation, perception is also individual. In a sense, perception is more individual and unique than sensation, because the response of the conscious organism is, in the case of perception, more complex than in sensation, since it is interpenetrated by the memories of former response.

In perception, also, there is no *tertium* quid in the form of a psychical content between the act of perceiving and the object perceived. There are some thinkers, however, who feel the necessity of introducing the element of content in the case of perception, although they consider it unnecessary in the case of sensation. They hold that without resorting to this conception of a content, it is impossible to account satisfactorily for the difficulty involved particularly in the perception of distant objects. Suppose, for example, the sun to be the object which is being perceived by the percipient A. The sun appears as a small disc to the actual perception of A. But it is not really a small disc as it appears in perception, but an object of immense size. Thus it seems that there is a wide gulf between the sun as a percept and the sun in its actual real nature as a physical object. Which of these two descriptions of the sun is the correct one? Are we to assume that its appearance to A as a small disc is false, and that the description given by the astronomer of its size is alone true? It is for this reason that some thinkers hold that the percept is mental and existentially distinct from the physical object. Their position is that in case

such conflict between appearance and reality occurs, both the appearances cannot be regarded as real at one and the same time, and the only way to get rid of the difficulty is just to regard the appearance to be a fiction of the mind as distinct from the object which is real. But it is not necessary to evade the difficulty in this way, because the introduction of a *tertium quid* leads, we have seen, to more serious difficulties and ultimately to phenomenism. It may be held that the appearance of the sun as a small disc need not be a mere appearance and as such false. The sun as it appears to the percipient is as much a real appearance as the sun described by the scientist which is infinitely greater than the perceived sun. The sun as the physical object emits waves of light from a tremendous distance and these affect the retina of the eyes of the percipient and the latter responds. The response is the act of perceiving. The response is very complicated here, because it is modified by the memories of similar past experiences, and is determined by certain other conditions, such as distance, the time which the light waves take to travel from such a distance and reach the eyes of the percipient, and also the peculiar constitution of the percipient's nervous system. These are the conditions through which the perception of the sun becomes possible. Though these conditions are in a way responsible for the limit they put upon our perceptive act, yet under no circumstances can we rise above them. We have to accept the limited range of our perceptive faculty due to these conditions as inevitable. No one can transcend these limitations. But the fact that our perception is limited does not certainly imply that it is false. It may be inadequate, a limit being set to it by those circumstances over which we have no control, but it knows the object truly commensurate with the range of its capacity as determined by those conditions which it cannot by any means evade.

Very often the relativity of perception is offered as a strong ground in support of subjectivism. The fact that things often appear to our attention and perception either in a distorted or in an abridged form is said to prove that the object of sense or the object of perception is not the real object, but only a creation of mind. When this is asserted, the fact is overlooked that our acts of sensing or of perceiving always work under certain limiting conditions which are inevitable and which we cannot escape. Further, the act of perception is always discriminative and selective in its nature, and the importance of this character of our perceptive acts has been very clearly stressed by

the neo-realists. In the example given above, the sun appears to us as a small luminous disc. The appearance of the sun as such in our perception is a real selection from the total object which is determined by the conditions of distance, the nature of the constitution of the nervous system, of the sense-organs, and our past mental history. Constituted as we are, this limitation of our perceptive faculties is to be regarded as of immense advantage to us in our practical life. If we were given more extensive powers of apprehension, and if things did not appear to us in this abridged form, we should find ourselves in the midst of a great welter and confusion of things and would find it considerably difficult to adjust our activities in relation to our environment in a way which would further the development of our powers. A drop of water appears to the naked eye as a tiny particle. When looked at through a microscope, it seems to contain innumerable germs which cannot be perceived by the naked eye. If we were to perceive, every moment of our life, all the details and complexities which the thing possesses, our life would be a burden to us, and we should be so pre-occupied with them that it would result in the suspension of all our activities.

It seems to us, therefore, that our perception is a direct transaction between our mental act and the real object. The extraneous conditions under which perception takes place need not always distort our perception. In some cases, of course, such distortion does take place, as in the case of illusory or erroneous perceptions. But these phenomena can be explained and their causes can be determined. The fact, however, that in some cases our perception does not give us a true account of the real object, is no ground for dubbing all perceptual consciousness as false. Under normal conditions the perception does give us true information regarding the nature of the real object, although such account may be inadequate and fragmentary. In perception, mind always grasps the real object directly; and, although it apprehends only a part or selection of the object, that selection under normal conditions is nevertheless true.

2. IMAGINATION

Imaginative knowledge presents greater difficulties in the way of a direct theory of cognition than perception does. Let us consider, firstly, what is called reproductive imagination, or memory-knowledge. Memory-knowledge

is, as we know, primarily concerned with the cognition of past events. In such cases, the object is not sensibly present before the mind, but it is the image which constitutes the object. Perception, as we have seen, is distinct from sensation in that it is a more complex affair, because the perceptual object, unlike the object of sensation, is partly sensible and partly ideal. The part of the perceptual object which is ideal is due to the revival of the past experiences connected with the perception of similar objects. Thus we have found that the act of perception, although not wholly, yet to a large extent, is interpenetrated by the memories of past experience. In the case of imaginative and memory-knowledge, the mind is free from direct contact with the present, and the object of such knowledge is said to be a revived image of the past object. It appears, therefore, that in memory-knowledge three elements are involved, namely, the mental act, the image, and the real object which is past and to which the image is said to refer. The question as to whether memory-knowledge is direct or representative will depend, therefore, upon the determination of the nature of images and the relation in which the image stands to the past real object.

The neo-realists generally, with the exception of Bertrand Russell alone, insist that memory-knowledge is direct and immediate, exactly in the same sense in which perceptual knowledge is so. Both Russell and the American realists identify the image with the past object. Their contention is that the image is not psychical, but physical and, as such, numerically identical with the past object. Russell alone contends that the image is not objective and physical, but is essentially subjective and mental and governed by laws essentially distinct from those which govern physical object. Thus Russell thinks that memory-knowledge, unlike perceptual or sensory knowledge, is representative and not direct and presentative. There are, therefore, divergent views concerning the nature of our knowledge of past objects. While the neo-realists generally maintain the presentative character of such knowledge, Russell holds it to be mediate and representative.

We think, however, that in deciding the question as to whether memory-knowledge is presentative or representative, it is necessary, in the first place, to determine the nature of image which is the object of such knowledge. Is an image mental or physical? We have already given our view concerning the nature of images in discussing Alexander's theory. (See Chapter IV.) There we found it reasonable to differ from Alexander in as far as

he maintains that sense and image stand exactly on the same footing. A consideration of the characteristic features of sense and image reveals certain radical differences for which they cannot be regarded as of identical nature. Hume distinguished between 'impressions' and 'ideas', and held that the distinction between them lay only in the greater degree of force, liveliness, and vivacity which the former possessed, as compared with the latter. Thus, impressions and ideas differed not in their essential nature, but only in degree. This view is supported by Russell when he asserts that the stuff of which sensations and images are composed is the same, and that 'in themselves they do not differ profoundly'. (*Analysis of Matter*, p. 110) The only difference between them, according to Russell, is one of causal laws. Images are caused by mnemonic laws, whereas sensations are subject to physical laws. Thus Russell, though recognizing the fundamental identity of stuff between sense and image, yet seeks to distinguish them by means of causal laws. And this recognition of distinction leads him further to conclude that the images are subjective and mental whereas sensations are neutral in the sense that the latter may be either physical or mental. Alexander, however, fundamentally differs from this view and maintains that an image has 'physical existence independent of the mind'. (*Space, Time and Duty*, I, p. 24) Holt, again, we have found, in his anxiety to exhibit the ultimate neutral character of everything in the universe, regards an image as, in its essential nature, neither mental nor physical, but as neutral, in the sense that it can at one and the same time figure both as the member of a psychic and as the member of a physical manifold without losing its intrinsic neutral character, like a geometrical point at the intersection of two straight lines. It seems to us, however, that images can hardly be regarded either as physical or neutral. There is no difficulty in thinking sense to be parts of physical objects and as such occupying parts of the spatio-temporal universe. In our apprehension of sense we feel a sense of hopeless dependence, a consciousness of objective coercion. It seems that the object presented to us does not depend in any way upon us for its existence; it is in no sense a creation of our mind. In the case of our apprehension of images, the situation is entirely different. Images do not appear to be situated in physical space. Their causes do not lie in the external physical world, and it would seem that they are more or less within the control of our will. Images depend for

their existence to a large extent upon our will. It thus appears that images are subjective and mental rather than objective and physical. The difference between sense and image is not merely a matter of degree but is one of nature. In this respect we agree with the view of James Ward who maintains that 'images as a whole are distinct from the presentation continuum, and cannot be spoken of as revived or reproduced impressions' (*Psychological Principles*, p. 173) and also with that of G. F. Stout according to whom 'at bottom the difference is a difference of kind, not merely of degree', since 'images do not strike the mind in the same way as actual sensations'. (*Manual of Psychology*, p. 537)

It appears that the neo-realist's insistence upon the theory of the physicality of images is due to his emphasis on directness of all forms of cognition. Memory-knowledge is as much presentative as sensation and perception. This leads to the assertion of the numerical identity of image and physical object. In memory, the image, as a psychical content essentially distinct from the physical object, is not present before our mind. The object of memory is not the mental image as the representation of the physical object; it is the object itself which is literally present before our mind. Thus there is presentation in memory-knowledge. The question here is: does a theory of the subjectivity of images commit us to the doctrine of representation? Is it possible to reconcile the theory of direct presentationism with the view that images are mental and subjective? C. D. Broad, who also belongs to the neo-realist school of thought, finds it extremely difficult to agree with such extreme presentationism, at least so far as memory-knowledge is concerned. He thinks that all that the memory-situation justifies us in asserting is that there is 'some peculiarly intimate relation' between the image and a 'certain part' of the past object. In the actual memory-situation, we are capable neither of asserting nor of denying the numerical identity of the image and the past object. If we do either so assert or deny, we do so after reflection or 'philosophizing about the memory-situation itself'. When we are actually living through the memory-situation we can neither affirm nor deny the numerical identity of the image and the past object. (Cf. *The Mind and Its Place in Nature*, pp. 242-243) Broad maintains us against representationists that images cannot be regarded as copies of the past sense and so our memory-judgements cannot be in any sense mediate or inferential. He asserts that

'memory judgements, like perceptual judgements, are "direct" and "immediate", in the sense that they are not reached by inference'. But he thinks that the perceptual situation brings us into more direct contact with the object than the memory-situation. As contrasted with the perceptual situation, the memory-situation is not 'so obviously intuitive or sensuous'. In some cases he finds the objective constituents of memory to be nothing but certain images or words. In such cases 'we cannot claim to be in direct contact with a past alien of the history of the object'. (Cf. *ibid.*, pp. 235-236) It is for these reasons that he finds himself unable to accept the theory of extreme presentationism, at least in the case of memory.

We agree with Broad in thinking that extreme presentationism in the case of memory-knowledge is difficult to maintain. The knowledge that we have of the object in memory is, indeed, direct and non-inferential, yet such knowledge is not exactly of the same type as perceptual knowledge. Images, we have contended, are subjective and mental, and not numerically identical with past objects or events; yet they have objective reference, a reference beyond themselves. We have to draw a distinction between the psychical nature of images in which sense they are existents and their logical function in which they are 'meanings'. In memory-knowledge the function of an image does not lie in picturing the past object, but in being a sign which signifies or means the real object. It is quite possible to study the character of the image by itself, in introspection, apart from any objective reference. But in a memory-situation, the psychological nature of the image remains completely subdued and its logical function of meaning becomes prominent and, consciousness being essentially self-transcending, we directly apprehend the past object which the image signifies. It is necessary to appreciate the importance of this logical significance of images. By virtue of this function, images keep the experient in continuous contact with real objects. They always sustain intercourse between mind and reality which is in a sense immediate and direct, although such immediacy, as Broad also urges, is different from perceptual immediacy. We think, therefore, that, although in the case of memory-knowledge we are unable to agree with the neo-realists in holding that there is numerical identity between the image and the past object, such knowledge is not representative but direct and non-inferential. It thus appears that the recognition of the

subjectivity of images is in no way incompatible with the assertion of the directness of memory-knowledge.

Before concluding, we should like to refer to the view that in cognition the mind is essentially selective and discriminative and not constitutive of the object upon which it is directed. It is a theory with which we find ourselves in entire agreement so far as the perceptual or memory-knowledge is concerned. The act of perception is essentially discriminative and selective in character. At a certain given moment we are aware only of some aspects or features of the object, and not the whole. In the case of memory-knowledge, also, we may say that the whole of the past object is not present before our mind, but that we are aware only of a part or fragment of it. But when we come to what is called constructive imagination, it seems that the conception of selection is not quite adequate. It is true that the materials for constructive imagination are all selected from the objective world, yet the form is imparted to them by the mind. In perception, our selection is wholly determined by the objective order of things. We grasp only a part of the objective reality, and this selection is certainly in a way determined by our interests. But, in making this selection, we cannot alter or modify the order or arrangement in which things present themselves to us. In the case of constructive imagination we possess, however, such freedom in abundant measure. Here our selection is less subservient to the objective order, and more determined by the activity of the mind. When the artist paints a beautiful picture, the materials for it are, indeed, drawn from the physical world, and in the actual work of painting he is to a certain extent subject to the limitations imposed by such extraneous circumstances. Yet the artist has before him an ideal form which he wants to translate into reality, and which nowhere exists in the world from which he obtains his materials. Here the act of imagination creates a new reality and adds to the richness of the content of objective reality. In the act of imagination, there is not merely selection under the guidance of physical reality, there is creation.

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